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ABSTRACT

Presented in this bulletin is the text of the hearings before the Select Subcommittee on Education of the Committee on Education and Labor concerning a bill to extend the Environmental Education Act of 1970 for three years (HR 3927). The hearings were held April 17, May 15 and 17, 1973, to provide an opportunity for individuals from the public, educational community, and environmental groups as well as officials of the administration to express their views on the bill. Chairman John Brademas prefaced initial statements by pointing out that the current administration requested no funds for the implementation of the Act in 1971; delayed establishing the Advisory Council, mandated by law, for a full 12 months after the measure was enacted; and delayed, also for a full year, establishing the Office of Environmental Education required by the Act. Also, that the administration has tried to hamstring the Office of Environmental Education in the Office of Education with redtape and a variety of bureaucratic strategies and has provided no money for the Office of Environmental Education in the proposed 1974 budget, virtually killing the modest program. Statements made at the hearings and additional prepared statements, letters, and supplemental material submitted for the record are presented. (BL)

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AMENDMENTS TO THE ENVIRONMENTAL EDUCATION ACT OF 1970

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HEARINGS

BEFORE THE

SELECT SUBCOMMITTEE ON EDUCATION

OF THE

COMMITTEE ON EDUCATION AND LABOR
HOUSE OF REPRESENTATIVES

NINETY-THIRD CONGRESS

FIRST SESSION

ON

H.R. 3927

A BILL TO EXTEND THE ENVIRONMENTAL EDUCATION ACT FOR THREE YEARS

HEARINGS HELD IN WASHINGTON APRIL 17; MAY 15 AND 17, 1973

Printed for the use of the Committee on Education and Labor

CARL D. PERKINS, *Chairman*

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AMENDMENTS TO THE ENVIRONMENTAL EDUCATION ACT OF 1970

TUESDAY, APRIL 17, 1973

HOUSE OF REPRESENTATIVES,
SELECT SUBCOMMITTEE ON EDUCATION
OF THE COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met at 9:30 a.m., pursuant to notice, in room 2175, Rayburn House Office Building, Hon. John Brademas, presiding.

Present: Representatives Brademas, Lehman, Peyser, and Meeds.

Staff members present: Jack G. Duncan, counsel; Martin LaVor, minority legislative associate; James Harvey, assistant staff director.

[Text of H.R. 3927 follows:]

[H.R. 3927, 93d Cong., 1st sess.]

A BILL To extend the Environmental Education Act for three years

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 3(c)(1) of the Environmental Education Act (20 U.S.C. 1532) is amended by adding at the end thereof the following new sentence: "Subject to section 448(b) of the General Education Provisions Act, the Advisory Committee shall continue to exist until July 1, 1976."

SEC. 2. Section 7 of such Act is amended by striking out "and" after "1972," and by inserting after "1973," the following: "$10,000,000 for the fiscal year ending June 30, 1974, $20,000,000 for the fiscal year ending June 30, 1975, and $30,000,000 for the fiscal year ending June 30, 1976,".

Mr. BRADEMAS. The Select Subcommittee on Education of the Committee on Education and Labor, will come to order for the purpose of opening hearings on H.R. 3927, a bill to extend the Environmental Education Act for 3 years.

The Chair should observe, at the outset, that the Environmental Education Act became law in October 1970 because members of the 92d Congress, including, most particularly, several distinguished members of this subcommittee, Mr. Reid, of New York, Mr. Hansen, of Idaho, and our former colleague from New York, Mr. Scheuer, felt we needed a citizenry informed and aware of the ecological challenge if we were to deal effectively with the problems of maintaining an environment of quality.

The Chair should also point out, in this regard, the words of President Nixon in August 1970, in his introduction to the first annual report of the Council on Environmental Quality.

Said the President:

> The basic causes of our environmental troubles are deeply embedded. It should be obvious that we cannot correct such deep-rooted causes overnight. We must see knothing less than a basic reform in the way society looks at problems and makes decisions. Our educational system has a key role to play in bringing about this reform. It is also vital that our entire society develop a new understanding

and a new awareness of man's relation to his environment—what might be called environmental literacy. This will require the development and teaching of environmental concepts at every point in the education process.

But the chairman would be less than candid if he did not observe, also, that this administration appears to be more interested in rhetoric in support of "environmental literacy"—to use President Nixon's eloquent term—that in action to provide adequate educational programs on the environment for all our citizens.

The Chair makes the observation for the following reasons: this administration requested no funds for the implementation of the Environmental Education Act in 1971; delayed establishing the Advisory Council, mandated by law, for a full 12 months after the measure was enacted; and delayed, also for a full year, establishing the Office of Environmental Education required by the Environmental Education Act.

And I think the record will show also, as we develop these hearings, that the administration has tried to hamstring the Office of Environmental Education in the Office of Education with redtape and a variety of bureaucratic strategies.

And now we find that the President's proposed 1974 budget would kill this modest program entirely by providing no money at all for the Office of Environmental Education.

The Chairman should also advise those present today, that we shall continue these hearings shortly, at which time we will give administration witnesses an opportunity to present their views.

Today we are privileged to have before the subcommittee a number of distinguished witnesses from the public, the educational community, as well as from environmental groups.

Speaking first, this morning, will be Mr. Arthur Godfrey, the distinguished radio and television personality, who has done so much to bring an awareness of environmental problems to the American people.

Mr. Godfrey will be followed by Nancy Stockholm, a student at Cornell University, and a winner, last year, of the President's Award of Excellence, the highest award given by the President's environmental merit award program.

Following these presentations we shall hear from a panel made up of members of the Advisory Council on Environmental Education, chaired by Mrs. Ella Mae Turner.

We shall then hear from a panel of citizens active in the environmental movement, followed by a panel of educators interested in environmental problems and the Environmental Education Act. Mr. John Yolton, vice president for Conservation and Natural Resources of the United Auto Workers will also testify.

The Chair should also point out that a member of the educator's panel will be Dr. John Moss, professor of geology, and director of environmental studies at Franklin and Marshall College in Lancaster, Pa. Mr. Moss has been scheduled to testify at the request of the distinguished ranking minority member of the subcommittee, Mr. Eshleman of Pennsylvania.

The Chair is also pleased to say we have with us today, as a member of the environmental panel, an old friend, Elvis J. Stahr, president of the National Audubon Society.

Mr. Godfrey, if you will come forward at this time, we would be delighted to hear your testimony.

I would caution all of our witnesses that, since our witness list is so long and our time so short, if we are to hear from everyone today and have an opportunity to put questions to you, you should summarize your statements, and we will insert your complete written remarks in the hearing record.

Mr. Godfrey, won't you please go ahead, sir?

STATEMENT OF ARTHUR GODFREY, RADIO AND TELEVISION PERSONALITY

Mr. GODFREY. Thank you, sir. Good morning, Mr. Chairman. It is a high honor indeed to be permitted to express my thoughts to this distinguished subcommittee.

I feel very distressed at what the Chair just announced about the attitude of the administration. What I have to offer—besides a few "frogs"—is very little in the way of expertise in any of the problems with which you wrestle here, but I acknowledge no superiors anywhere in my love of what we call America or in my concern for the survival of the human species anywhere on earth, nor do I have any taste for the light in which such a statement places me because I am not by nature a prophet of doom. If I can get by another 5 months, I will have lived the three score and 10 years to which we lucky ones are said to be entitled and I have ecstatically enjoyed every priceless moment.

I have worked hard at my profession for 52 years and I had planned to boat my oars, as it were, in 1965, and rest on them while gazing at the fast disappearing wake over the stern into the sunset; but 7 years ago, Mr. Chairman, a 51-hour flight around the world in a small jet aircraft, followed almost immediately by a 30-day evaluation tour of the late debacle in Vietnam, gave rise to a compelling endless search for scientific documentation for a new ethic.

Now, this philosophy had been years in gestation, as it were, in my mind due to a paucity of any but empirically acquired knowledge, but its eventual triumphant birth and subsequent rapid development dates from the first moon orbital flight of Frank Gorman and his associates. The photographs of earth taken from that flight were more than enough in my opinion to justify the NASA appropriation up to that time. Every nickel spent since then for other than communication or other unmanned satellites, has been pure luxury, icing on the cake, in my judgment. And I am convinced gentlemen, that had our society developed by then what President Nixon, as you have referred to his statement, has called the environmental literacy which must be reached quickly, we would not be faced today, as we are, with the spectacle of so many worthwhile high-priority projects fighting for funds.

Mr. Chairman, extension of the Environmental Education Act indefinitely should be pure academics, in fact, this is the one place I would like to see the Congress write a blank check. Astronomers tell us that the universe is 15 to 20 billions of years old. Earth apparently settled into this orbit around our tiny little sun 3½ to 4 billion years ago, a red hot, violently heaving mass of molten lava. By about 0.6 billion years ago this outer shell that we now call the "ecosphere," in

which we live, had cooled sufficiently to support the first living cells that we know of.

Now 598 or so million years later, give or take 100,000 or 200,000 years, this "critter" we call Homo sapiens emerged out of the mists of antiquity while several thousand similar experiments had not made it. They had become extinct as have 98 percent of all species known to have existed before us. Some 250 other species have become extinct during only the past century. It now becomes more and more obvious I think that we human beings are not necessary as a species here. Nature could get along very well without us and did for many millions and millions of years, but Homo sapiens somehow, having weathered countless severe trials and traumatic ordeals, survived.

Having no claws, no fangs, no great strength nor speed, man had to develop his brain: his cunning, resourcefulness, ruthlessness, coupled with relentless fury and determination in order to get by. But about 8,000 years before Christ, somebody discovered what we now call agriculture and life gradually became progressively easier. Technology also gradually brought about the relatively recent phenomenon called human nature, which is actually an unnatural quality in man, and it is not irreversible.

By 2,000 years ago, man seems to have numbered perhaps 2 to 5 million and had become established most everywhere, even here in North and South America. By 1630, he had reached 500 million. By 1830, only 200 years later, 1 billion, and by 1930 the human population had doubled to 2 billion. By 1960 it had tripled to 3 billion and here we are in 1973 with nearly 3.8 billion human beings on the face of the Earth, increasing at the rate of 70 million a year, doubling therefore, every 30 years. This means 7 billion by the 21st century, 14 billion by the year 2030, and 28 billion by the year 2060, and so on, which is, of course, ridiculous: there isn't room enough. In our country, our population growth rate is only 1 percent per year and everybody thinks that is not bad. But everybody forgets that 1 percent of 200 million is 2 million per year; 2 million a year is 50,000 every week. That is a Washington, D.C., every 20 weeks or so. That is a New York City every 5 years. A Los Angeles every 4 years, et cetera. Now, earlier I spoke of my new ethic. Aldo Leopold wrote of a land ethic in his "Sand County Almanac" and from that I got my idea. Dr. Erstin Barnes wrote of a "conservation ethic" years later in 1959. Now the doctor suggests a "nature ethic" and I love that because it makes me feel good to see somebody crystallizing the thoughts I have had.

I think, Mr. Chairman, that the No. 1 priority is not energy—is it a real or imagined crisis?—nor any of the other proposed projects. Education is No. 1. And I think the reason for it can best be described with the adjective "Copernican," sir. Copernicus who lived 500 years ago. It was he who discovered that our solar system is not geocentric but heliocentric. Everybody thought up to his time that Earth was the center of everything and all heavenly bodies rotated around us. Despite the fact that he spent his whole lifetime proving this, he didn't really believe it himself until just before he dies when he finally allowed his papers to be published, despite the fact that Magellan, Columbus, and others had long since proved it to him.

Imagine what "Joe Citizen" was up against. For a couple of centuries he just couldn't dig this. He couldn't get it through his head that things were different from the way he had been taught. Now, I

draw that example only to show how difficult it is for individuals to arrive at a "nature ethic." We are so steeped in Judeo-Christian myths and dogma from Genesis 26, 27, 28, and so on, so filled with anthropomorphic arrogance which we must lose if we are to make any progress whatever.

I was cheered 3 years ago by a convocation, in Claremont, Calif., of the clergy who held a very productive seminar, the results of which were published in part way back in the obituary section of the New York Times. I never saw anything more about it. However, recently Cannon Hamilton of the Washington Cathedral is saying that a good starting point to reform would be to discount these secular and religious myths. "We must be open," he said, "to truth and be willing to make appropriate personal changes."

Now, Mr. Chairman, I am here in Washington on business with the President's Advisory Council for Oceans and Atmosphere, which has a closed session today. I left early yesterday and worked until 2 o'clock this morning on these few remarks so I have no copies. But I did bring you, and I hope you will permit me to distribute them to your committee, something I would like for you to put in the record. It is volume 28, No. 1, Atlantic Naturalist, in which Wendy Adler describes a monumental seminar which was held in November at a place called Wood End here in Washington entitled "The Pressing Need for an Environmental Ethic." I have the chairman's copy here of this. But, Mr. Chairman, in it you will read, much more beautifully written than anything I could do, these very thoughts I present to you, sir, and you will have them now in the record, as expressed by some of the great minds in ecology today.

I must conclude here, sir, with—well, the easiest way to do it I think is to quote this last paragraph here.

"How do we as individuals arrive at a nature ethic?"

A true ethic is no ready-made concept that can be adapted from another. It is not even certain that ethics can be taught. A nature ethic is a very personal possession. It took me a lifetime to form mine. It evolves with one's understanding of life and its values and requires no college degrees, no formal education of any kind. Most of it is knowledge empirically gained.

Experience and observation can provide some of the raw materials, understanding and insight can sharpen the choice and the thoughts, and the writings of others can stimulate the thinking. How we propagate a nature ethic in a democratic society, particularly in an urban society where most people are largely cut off from direct contact with nature, is something to contemplate. It well well be that if we fail to give effect to a nature ethic in a democratic society that society will not survive. Nature cares nothing for the forms of social organization, except that they produce good or bad environmental effects. Therefore, the most essential task of education should be to give every child an understanding of the laws of nature, which must govern our lives individually and collectively.

Now, this may be an impossible challenge in a society where natural values are alien to most of the adults, so the educational effort on a crash basis needs to be extended to adults. A nature ethic must become an article of faith for all of the people. We cannot evolve and sustain a program to preserve the environment unless a majority of the people have faith.

Therefore, sir, I respectfully urge the immediate extension and appropriate funding of the Environmental Education Act, and I thank you.

Mr. BRADEMAS. Thank you very much, Mr. Godfrey, for a most eloquent statement of the need for environmental education.

As I listened to you, my mind went back to the hearings that we had a couple of years ago on this legislation when we heard another most eloquent statement from a distinguished American painter, Robert Motherwell, which I would like to send to you, because I think you would find yourself on all fours with him.

I was especially struck by your statement that you feel that this should be one place where you would like to see the Congress write a blank check.

Mr. GODFREY. Yes, sir.

Mr. BRADEMAS. And while that is not something that we find easy to do, the thrust, the motivation for your statement I find very compelling. I wonder if you could comment on an experience which I believe was yours some years back, Mr. Godfrey, when you insisted that an advertisement—in support of a detergent product—in which you appeared, be taken off the air.

Can you give any significance to that incident in terms of what we are here today discussing?

Mr. GODFREY. Yes, sir, the significance of that parallels I think, the efforts being made now by the automotive industry. I have just quite amicably severed connections with the Chrysler Corp. for whom I have great respect. I took them on to talk about the whole thrust of their endeavor because I was at once convinced they were really trying to develop a car that would last longer, run better, and give less trouble and, therefore, pollute less.

I still think they are still trying to do that, but they just refuse to have anything to do with any not-in-house, which is an expression in the business, "NIH," not-in-house ideas that come from other places, that might answer the problem. They steadfastly believe in the value of the I.C.E.

The detergent people really thought perhaps at the time, that there was no such thing, as they call it, in the product as a detergent. They said it was enzymes. I asked all of my ecologist friends and they said: "Enzymes are not too bad. Insofar as we know, they don't cause any trouble unless you inhale them and there is not enough in a package to do that. Sure, if that is all that is in it, fine, go ahead."

Lo and behold, I later found not only did it contain phosphates but it contained more than any other competitive product. Then of course, I got out of it entirely.

Now, the automobile: what they propose now is to take another advertising tack—to promote individual models in order to meet competition. Well, the only kind of automobile that I could sell now in good conscience would be an electric car that I have been driving recently, last 2 years on and off, in Detroit, which really works. It really is a fine, viable, automobile. It will grow and get better. It is an electric fuel propulsion car.

Now, the car industry people, all of them, not only my late client, but all of them say that would never do, to replace our 100 million cars with electric cars because, (a), we don't have sufficient electric

power to charge batteries and (b), we don't have lead for batteries to begin with, and so forth.

If I may be excused, the expression, fiddle-dee-dee, nobody is talking about replacing *all* cars. What I am talking about is, we are now a nation of two-car and sometimes three-car families in America. The car that we use, for instance, to commute to Washington every day and go back home could easily be this electric car. It would take a couple of years to get going to produce even 10,000 or 15,000 a year, but every time you drive one of these you bring down the air pollution just that much. [Indicating.]

The puzzling imponderable, in answer to your question, is where the automobile industry is today. We do have this electric car available. I *have* driven it from Detroit to Ann Arbor and return on one charge of the battery, at no time holding up traffic in any way. I did the 57 miles in 61 minutes, within the speed limit, went along with everybody else and nobody realized it was all electric. This car is available, is practical, is usable, but the big manufacturers will not touch it apparently because it was not invented in-house. They are all nice people, but pretty stubborn.

Mr. BRADEMAS. I have many more questions, but I want to be sure, Mr. Godfrey, that my colleagues have an opportunity to put some questions to you.

Mr. Peyser of New York has been a vigorous proponent of this legislation in the Congress. Mr. Peyser.

Mr. GODFREY. Good morning, Mr. Peyser.

Mr. PEYSER. Good morning, Mr. Godfrey. I find it difficult after all of the shows and years, not saying Arthur, as I have heard on the air so often. We are delighted you are here and delighted to hear your testimony.

A number of us on both sides of the aisle, Republican and Democrat, have felt deeply disturbed over this Environmental Education Act, particularly because the actions in HEW under Secretary Weinberger which are going to seriously effect the continuance of this program. Just today I along with the chairman and a number of other Congressmen have sent a letter to the Secretary strongly protesting his actions, and trying to reverse what would be a blow at environmental education.

You covered a broad scope in your statement and I would like to keep some of the questioning just on this area of the environmental education program. However, first I would like to say that I will certainly not hold against anyone that I have a book here addressed to Ella Grasso, but I hope that you can sign one for me and I will look forward to having it.

Mr. GODFREY. I have an extra one for you. I didn't know you were going to be here.

Mr. PEYSER. All right, thank you.

In your travels throughout this country you have certainly had what I would call a great contact with the people and a great ear for the people. In the area of environmental education, we are speaking of the really small programs, the average grant being about $10,000, at schools and organizations, which can really make a contribution to the whole environmental scene through education and activities.

Based on your experiences, do you feel that there is a demand among the people, among organizations, whether they are schools or non-

schools, in participating in this program, and how would you visualize their interest?

Mr. GODFREY. Yes, sir. I do think there is an inner yearning for learning of this kind. I think perhaps the greatest example I could cite for you would be a dramatic incident that occurred in Kansas City 5 years ago or 6 years ago.

A Kansas City high school instituted a class in ecology saying that they had been inspired by my talks about it on the air and they invited me to come and address the high school body, the student body. They had a 750-seat auditorium. There were 1,500 students so I had to make the same speech twice one morning.

During the speech, I could hear a pin drop anywhere in the house. That was the first thing the principal of the school remarked, that for the first time in his career that had happened, that somebody was talking and none of the kids made any noise or coughed or anything, they listened to the whole thing, and when I had finished, the students themselves gave me a copy, a paperback copy, autographed of Aldo Leopold's "Sand County Almanac" which I enthusiastically recommend now to everybody, every American, to read.

I had seen that book when it was first published in 1948 and the title had turned me off and I threw it aside, saying "Who in the world needs anything about Sand County? Where is that?"

Now, I took this book and having been greatly touched by this gesture, I sat down in the hotel room to read it and I must say to you, sir, that in 20 minutes or so I was in tears, saying "Godfrey, you idiot, if you had not thrown that book away 10 or 12 years before, we might have been a little farther down the line."

I had been thrown off by that title, because in that book is this very thing that I am talking about, this ethic, this land ethic, of which the late great Aldo Leopold wrote so beautifully and the kids knew it. Much of the media now declares that this was "last year's in," and therefore, it is not viable now, and we should not talk about it anymore.

I have great difficulty anymore getting these thoughts across on radio and television for the reason that they think it is no longer "in," there is something else this year to talk about.

For heavens sake, if the simple arithmetic is right, and I cannot see how it can be wrong, I can see no way in which it can be wrong, we should be increasing our anxieties and worries instead of putting it aside as a problem no longer relevant. Actually, it gets progressively worse. All of these bits and pieces we do, attaching the water, air pollution, strip mining (of which I am very happy to be honorary chairman of the coalition), the SST, things of that kind, those are all little bitty things that do not mean anything.

They are all a part, all very worthy endeavors, but they tend to confuse the average person because vested interests are quick to come up with reactions that soothe it all down and people put it out of their minds.

Yes, Mr. Congressman, I am certain that down in his heart everybody can see. As I can see, you can see the gradual deterioration of our little ecosphere—that thin shell around our spacecraft—which contains the top few inches of soil and the air and water that we breathe and drink.

That is slowly deteriorating, is slowly dying on this planet, which is unique in the universe. I think the answer to the question is, "Yes,

if we can get the cooperation of the clergy, and they seem anxious to cooperate; of the schoolteachers, a great many of whom I have spoken to during the past couple of years; of the media itself, to forget this theory; that we must have something new and sensational every day in order to keep an audience.

If we could do that, I think that we would find this would be a very deeply imbedded interest, because the young people, sir, are the ones that are going to have to pay for it.

Mr. PEYSER. Thank you very much, Mr. Godfrey, for that statement.

At this time, Mr. Chairman, I would like to ask unanimous consent that the letter that I have written, that you have cosigned with me, to Secretary Weinberger, be entered as part of the record.

Mr. BRADEMAS. Without objection, it is so ordered.

[The document to be furnished follows:]

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., April 16, 1973.

Hon. CASPAR A. WEINBERGER,
Secretary, Department of Health, Education, and Welfare,
Washington, D.C.

DEAR MR. SECRETARY: We are writing you out of a deep sense of concern with the future of one of the key programs in our national strategy for environmental protection: The Environmental Education Act of 1970. Responsible individual action must be the cornerstone of an effective national response to our environmental problems, and environmental education must provide our citizens with the information and knowledge necessary, in President Nixon's words in this year's Earth Week proclamation, for "personal voluntary activities and educational efforts directed toward protecting and enhancing our life-giving environment."

We share the President's confidence that our citizens are ready and able to respond to this challenge; indeed, as proof of this willingness, we would point to the thousands of citizens who, through various local community groups, have put their own time, talents and expertise into the preparation of grant proposals under the Environmental Education Act. One of the expressed interests of this Act was to give encouragement to such private citizen initiatives by providing the supplementary funding through which innovative educational projects could prove themselves. Without such funding, the chance to use hundreds and thousands of volunteer man-hours on such projects would be lost.

It seems to us that, after announcing the availability of such grant funds through the *Federal Register*, after buliding up the expectations of these citizens that federal funding would be available, it is completely inconsistent with the spirit of President Nixon's Earth Week proclamation to break faith with these citizens and to celebrate the week by the virtual dismantling of a national commitment to environmental education.

Yet it is our understanding that, because of technical problems in the handling of federal grant procedures within the Office of Education, you are considering reducing the funds available to the Office of Environmental Education in fiscal year 1973 from an already inadequate $3.18 million to a mere $1.1 million. In your original 1973 budget, the Administration had asked for $4 million; already because of the delay in the final passage of the HEW appropriation this has been reduced to $3.18 million. A further slash would, in effect, destroy the program before the Congress has had a chance to review its performance over the past three years and determine what, if any, action should be taken to renew or modify the Act.

We urge you most strongly not to permit such technical problems to stand in the way of providing the full $3.18 million appropriated for environmental education grants in 1973. As the President stated in his proclamation, the first Earth Week in 1971 marked an important milestone for the cause of environmental protection. Surely none of us wishes to see Earth Week 1973 go down as another kind of milestone, as the moment when the federal government, by abandoning its

commitment to environmental education, turned its back on those qualities of "individual initiative, voluntary action, and a deep sense of responsibility for the gifts of nature and the welfare of the community."

Sincerely,

John Brademas, M.C.; Bob Bergland, M.C.; George E. Brown, Jr., M.C.; John Paul Hammerschmidt, M.C.; Parren J. Mitchell, M.C.; Donald M. Fraser, M.C.; Peter A. Peyser, M.C.; Paul N. McCloskey, Jr., M.C.; Antonio Borja Won Pat, M.C.; Michael Harrington, M.C.; Joshua Eilberg, M.C.; Ken Hechler, M.C.; Henry Helstoski, M.C.; Edwin B. Forsythe, M.C.; Herman Badillo, M.C.; John Moakley, M.C.; John A. Blatnik, M.C.; Bill Frenzel, M.C.; Frank Horton, M.C.; John F. Seiberling, M.C.; Ron de Lugo, M.C.; Donald W. Riegle, M.C.; Hamilton Fish, Jr., M.C.; James V. Stanton, M

THE SECRETARY OF HEALTH, EDUCATION, AND WELFARE,
Washington, D.C.

Hon. JOHN BRADEMAS,
House of Representatives,
Washington, D.C.

DEAR MR. BRADEMAS: Thank you for your letter of April 16 concerning continued support of the Environmental Education Act of 1970 which expires on June 30, 1973.

We understand your interest in continuing an environmental education program, but we do not favor the extension of the Act. We are trying to eliminate the categorical focus of education legislation and feel that the extension of the Environmental Education Act would perpetuate that focus rather than eliminate it.

Other Office of Education authorities—for example, the Cooperative Research Act—provide an adequate legal basis for continued activities in environmental education. At this time, however, with severe budgetary constraints facing us, it seems to us that a more meaningful impact in the field of environmental education could be made by making it a part of the regular school curriculum rather than funding small projects that arose interest for a short time and then disappear.

In addition, the Better Schools Act of 1973, now before the Congress, would give State and local governments the flexibility to fund local priorities, like environmental education, if they wished to carry on special programs in that area.

Your letter mentions "technical problems" which affect 1973 funding for environmental education. The problems consist of the improper recording of 1972 grant and contract obligations after the close of the fiscal year. Included in this is $2,025,500 of Environmental Education funds.

Because of the backdating, $2,025,500 of 1972 funds was unspent. This resulted solely from workload processing problems in the Office of Education and does not represent any effort on the part of the Administration to cut back the program. In 1973, the entire $3,180,000 budgeted for Environmental Education will be spent. After the adjustment for properly recording the backdated grant awards as 1973 obligations, $1,154,000 remains to fund previously unapproved projects.

Sincerely,

CASPAR W. WEINBERGER,
Secretary.

Mr. PEYSER. Thank you very much, Mr. Godfrey.

Mr. BRADEMAS. Mr. Meeds of Washington?

Mr. MEEDS. Thank you very much, Mr. Chairman.

Mr. Godfrey, my commendation to you. We are indeed fortunate to have such an eloquent and forceful advocate of not only environmental concern but of education. I think that is a very fine combination. I also want to commend you for, as they say in our business, putting your money where your mouth is.

You have always struck me as the kind of person who was very sincere and when you felt something, you went all of the way, and I can see it again in your testimony this morning.

I am struck by what you state to be the priorities. The most important thing you say is education. Then you talk about this planet, Earth and the frailty, really, of it. And, here we are in this room considering something that combines both of those things, education and the concern for the ecology.

I am just very disconcerted that as a society we are doing so little about either and so much about some other things sometimes. So, I am not going to ask any questions. I am just going to say I certainly agree very much with your position, your statement, and I commend you for coming before the committee.

Thank you very much.

Mr. GODFREY. Thank you, sir.

Mr. Chairman, I have one more statement I would like to make, one more suggestion. The late Lyndon Johnson, when he was minority leader of the Senate, helped me to bring about the act that provided the funds, for example, for the B–52 and later for a general pay increase throughout all of the military services, so we could hold really good personnel as career men.

And, in the course of that—in the course of those very interesting excursions into politics, I learned something which will help us here if we only practice it and remember what he said. I am sure that each of you gentlemen will agree with it. There is no force greater in America than intelligently, politely written constituent mail, not only to you gentlemen of the House but to the Senators and to the President himself.

The opposition, as I have to call them, although they say they are not, spend 24 hours a day and millions and millions of dollars a year constantly on the job to eradicate any good we do. They count on us, and when I say us I mean the general public, becoming not so interested after a while, the interest fades, and they figure that we will become apathetic, that all they have to do is wait us out. By gosh, it is beginning to show up as the truth.

What we need to have is interested people like yourselves and your constituents to write—not to you, you already have shown your interests—to other members of your committee; Members of the entire body, both Houses and the President himself. That is the way to get things done.

Thank you.

Mr. BRADEMAS. That is very good advice.

Mr. Lehman of Florida?

Mr. LEHMAN. I, too, just want to thank Mr. Godfrey for taking the great personal effort that he has taken to lead us in this necessary challenge against the kind of situation that we are going to be facing.

The thing that I would like to ask, and I have just two quick questions. One, do we really have enough time to educate the youngters today? Two, with energy and environment being really two sides of the same coin, can we really reeducate and redirect this country; a country that uses 35 percent of the energy with 5 percent of the population, and really turn this country in the right direction for its self interest as well as that of the whole world, so that it faces the fact that maybe we are not entitled to this much energy in this country?

Those are two tough questions, but you can answer them anyway you want to.

Mr. GODFREY. Yes, sir. My point is, if we can learn and adopt individually this nature ethic, then none of this other hard work is necessary, but all of the other problems, or the solution to all of the other problems becomes immediately obvious to you if you understand what a nature ethic is, which is why—well, the youngsters are not going to get it if their teachers and their parents do not teach it, and I do not think we have time to wait for 100 years.

We have to start on adults today, and that is why I want to see the bill passed with unlimited funds to make the knowledge of this broad subject available to all adults, whether they ever went to college or not. It is preferable they did not, because they do not then have to "unlearn" so much.

Mr. BRADEMAS. In you response to Mr. Lehman's question, you summarized the principal thrust of the Environmental Education Act, Mr. Godfrey.

I say that because the act is aimed at supporting community conferences on the environment, for civic and labor and business and governmental leaders, while at the same time, it is aimed at providing support for environmental studies at the elementary and secondary school level throughout the United States. That is, of course, a very big task.

There are some who say that school systems across the United States have been alerted to the need to include the environment in their curriculums. But, at least from my own observation, we have a very long way to go.

Do you have any comment on that allegation, on the allegation, of some, that we do not really need to provide this Federal stimulus anymore because school systems have already been alerted enough to do it?

Mr. GODFREY. That whole idea is wrong because they really are not teaching it, for the simple reason that they do not know themselves. It is a very difficult thing, Mr. Chairman, to even get a finished scientist to understand nowadays, I have discovered.

For instance, 6 or 7 years ago when I introduced a scientist, a Ph. D. at a discussion of some kind and I said, "the distinguished ecologist" and so on, the speaker got up and spoke 10 minutes explaining modestly that he was not an ecologist, but a biologist or whatever, or a geologist, and nowadays if I don't call him an ecologist, he gets very mad.

All of a sudden he has become an ecologist, but by sheer definition, Mr. Chairman, it is impossible for anybody, regardless of his brain capacity or formal education, to call himself a true ecologist, because ecology is the science which treats of the interrelationships that exist between all living organisms and no one brain is capable of understanding it.

The best we can ever be is keen students of ecology.

Mr. BRADEMAS. Well, I appreciate that observation, Mr. Godfrey, because I was rather startled to see the Office of Management and Budget in statements on budget reductions and terminations submitted to the Joint Economic Committee, by way of defense of their total elimination of budgetary requests for the EEA in fiscal 1974, state, and

I am quoting, "The primary purpose of this program was to alert school systems to the need to include the environment in their curriculums. This has been accomplished."

Now, that seemed to me to be so patently dishonest that it bordered on the ludicrous.

It is an example of one of the things that has increasingly troubled me, in terms of some of the justifications that the administration has given for phasing out a number of important programs in health and education; namely, that we very carefully evaluated these programs in terms of their costs and benefits and have concluded either that the need for them no longer exists—as with, for example, environmental education—or that the benefits are not suitable to the cost.

And yet, as a member of this committee for 15 years now, I think I can say that, in many respects, when we are talking about the evaluation of the impact of programs on human behavior, that we really do not know that much yet.

We are still in the Neanderthal age in terms of having the intellectual equipment to intelligently evaluate these questions. A little humility before the fact would seem to me to be in order, rather than for fiscal reasons saying, "Well, we carefully evaluated these programs," which any responsible social scientist would, I am sure, agree is simply not possible, given the present state of science. I only offer that homily in the spirit of our colloquy here.

Mr. Godfrey, we could spend all day putting questions to you.

I want to reiterate the thanks of our subcommittee and to say, as Mr. Meeds did, how much those of us in elective office appreciate the fact that a prominent personality like yourself is willing to speak out boldly, and with conviction, on issues that are crucial to the life of our people. We are very grateful to you, sir.

Mr. GODFREY. The Chair is well versed in these matters I can see, and his remarks are well taken. I serve the President on two committees, sir, and Governor Rockefeller on another. When he asked me to accept the appointment, I said, "Of course, Mr. President, you know you have to but ask and I shall do what I can, but you must understand, sir, that I am no rubberstamp for the administration because I am in hearty disagreement with a great deal of its policies."

He said, "That is exactly the reason I want you on the committee."

Well, I have this to say. It is a good way to let a man sound off and accomplish nothing.

Thank you, sir.

Mr. BRADEMAS. Thank you very much, Mr. Godfrey.

We are now very pleased to hear from Nancy Stockholm, a student at Cornell University. Ms. Stockholm, we are glad to have you with us.

STATEMENT OF NANCY STOCKHOLM, STUDENT, CORNELL UNIVERSITY

Ms. STOCKHOLM. Thank you, Mr. Chairman and distinguished Members of Congress.

I appreciate this opportunity to express my views on H.R. 3927, the Environmental Education Act, based on my personal background and experiences. Currently a freshman at Cornell University, I was accepted early and decided to study environmental science with strong emphasis in political science and public relations.

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I graduated on the 4-year honor roll from Oak Park and River Forest High School in Illinois, where I was active in environmental projects. In April of 1972 I was one of eight students in the country to receive the first President's Environmental Merit Award for work in school-community environmental programs.

As a winner, I came to Washington, D.C., to receive the award at the White House, and to tour the Environmental Protection Agency here. During high school I was cochairman of a 1970 teach-in that involved over 4,000 students and faculty in a week long environmental workshop. After the workshop, I was student chairman of the pollution control center, first of its kind in Illinois as a center within the high school to coordinate a variety of environmental projects.

I was a staff member of our school paper for 4 years, and in 1972 the Chicago Tribune published an editorial that I wrote on an environmental bill in its editorial page. In 1971–72, I served as the youngest appointee to the Illinois superintendent of public instruction 25-member task force to develop a master plan for environmental education.

In March of 1972, I testified before the Secretary of State's Advisory Committee to the 1972 Conference on the Human Environment in Stockholm, during hearings of the subcommittee on the social, cultural, and educational aspects of the United Nations conference.

I am a student who has spent over 5 years involved directly with environmental projects ranging from community to international levels. Moreover, I plan as a career to try to find ways of solving environmental problems through public understanding and response combined with corresponding legislation and law enforcement.

I have become increasingly convinced that environmental education is essential in dealing with these problems. I hope to present evidence that supports my opinion from the best source that I have—my personal experiences that have been influenced by many kinds of environmental education programs.

Not only have environmental education projects affected my attitudes and actions, but they have reached hundreds of other students and adults that I have had the opportunity to work with.

By describing just a few of the past and potential accomplishments that relate to this bill, I hope to convince you that renewing the Environmental Education Act will enable significant, long-lasting environmental improvements brought about by a diversity of citizens and organizations in the United States.

The critical need for environmental education has been established in verbal and written statements by the President, the Council on Environmental Quality, Members of Congress, and professional and citizen organizations.

In his 1972 environmental message to Congress, President Nixon stated:

> The starting point of environmental quality is in the hearts and minds of the people. Unless the people have a deep commitment to new values and a clear understanding of new problems, all our laws and programs and spending will avail little.

The President added to his introduction to the third annual report of the Council on Environmental Quality:

There is ample room for encouragement in the growing capacity of a people to assess their problems, take stock of their situation and get on with the unfinished business of shaping the United States as a model of satisfying and healthful environment.

Success of programs, no matter how beneficial, depends on support by Americans of all ages and backgrounds who are good citizens in the true sense. These citizens must be able to view environmental concerns not from an emotional or slanted viewpoint, but from one that is serious due to an understanding of man's technology, attitudes, and capabilities for environmental damage.

I have seen environmental education programs develop this type of awareness, with the result that people take constructive action, based on understanding. I was one of hundreds of high school students to attend two week-long conservation workshops at Southern Illinois University in 1969 and 1970.

These intensive programs, presented by experts in environmental fields from the university, educated students to specific pollution problems. More importantly, they provided students who were concerned with information on how to set up programs to solve these problems when they returned to their own communities.

Students received scholarships to attend from local sportsmen's clubs, garden clubs, or other civic groups or schools. With its limited funds, the program did not run throughout the year, but every session produced about 100 students who multiplied their knowledge and concern by beginning projects in their hometowns.

For example, a classmate and I returned to plan a weeklong 1970 conservation workshop at Oak Park-River Forest High School in observance of the first Earth Day. This workshop brought together conservationists, scientists, educators, and industry representatives in order to educate the students, faculty, and other citizens of the community.

After a small steering committee of students convinced the administrators to reschedule classes for the entire week, the students themselves selected and contacted all speakers who spoke to over 4,000 listeners during the program.

Attorney Joseph Karaganis, special assistant to Attorney General Scott of Illinois, talked to history classes about environmental legislation. Mr. Gunnar Peterson, director of the nonprofit conservation group called the Open Lands Project, lectured to English classes about ecological concepts and personal lifestyles, and representatives from Commonwealth Edison and Universal Oil gave presentations to science classes regarding industrial pollution.

Lectures were only part of this program which utilized the talents of students and faculty through environmental articles in the school and local papers, posters and displays, educational films and printed matter, and activities like acquiring an air pollution monitor for the roof or planting trees on school property.

But this was only the beginning, because after the workshop, students and teachers realized the need for environmental education and action in their school and community. They suggested an environmental biology course to the local school board, so that now there are several environmental science courses that emphasize the social, political, and economic aspects of environmental problems.

The summer field biology class has been especially exciting, with students visiting nature areas, industrial sites, municipal sewage treatment plants, and other places to analyze pollution control. Students do independent research too, like testing local water for dissolved oxygen, or recording air pollution counts from the monitor on the school roof.

Environmental action centers around the pollution control center are offices that the students run to coordinate projects within the school and community, and on a larger scale. They decorated an old storage room, borrowed some file cabinets and a desk, and obtained a phone.

The center is open each schoolday with student volunteers to answer the phone. Here students or citizens can get free pamphlets, periodicals, and audiovisual aids on a wide range of environmental topics. Besides keeping in touch with other environmental groups and providing information, the center organizes an amazing range of projects.

Some of these projects are permanent recycling village-wide of glass, paper, and metal, speakers for local elementary schools that lack environmental education courses, the saving and maintenance of a local conservatory, representatives to testify at State pollution control board hearings, maintenance of file on current legislation, State and Federal, and telephone, letter campaigns, coalition with other schools to work on common projects.

The important point here is that this kind of program is not unique. Energetic students and teachers across the Nation are working with limited funds and resources to produce exciting results.

With modest Federal support, these projects can spread to other areas. Once combined with local talent, funds, and enthusiasm, the returns measured in public awareness and environmental improvement far exceed the investment.

Last October, using a small amount of money from the Federal Office of Environmental Education, services and personnel from the Environmental Protection Agency Region V and National Park Service, and students and faculty from Illinois and Wisconsin high schools, a weekend environmental problem solving conference was held.

The monetary investment was small, but the interest on the part of staff of sponsoring agencies, and the work done preparing for the conference by participants maximized the result. Over 140 students and teachers attended from urban, suburban, and rural environments.

Those attending learned about environmental education and projects at other schools, how to organize similar programs that would be locally significant, and where to go for instructional materials and help from other schools, citizen groups, and government agencies.

They also gained practical knowledge of water testing using the Tilden guides developed by the Cleveland Institute for Environmental Education, with help from the Environmental Protection Agency and the Office of Environmental Education and other instructional aides.

The follow up activities of the conference are numerous. The schools have organized a newsletter to keep informed of projects, and a monitoring network of a river that runs from Wisconsin into Illinois. Special student research groups have researched discharges in local

rivers and obtained convictions of illegal water pollution through the local sanitary district regulations, and State laws in some cases.

Teachers have returned to their schools with new ideas for curricula, and interdisciplinary courses on environmental studies. Although the organizers could not obtain Federal funds for a followup conference, private donations and a grant from UNESCO will support an international student environmental conference late this April.

Patterned after the first conference, it will emphasize student and adult cooperation on community environmental problems. Foreign students from 10 countries will meet with host students in Illinois and Wisconsin to learn about specific projects, and to visit schools, parks, industrial centers, landfills, and sewage treatment plants. The implications worldwide of this program are apparent.

Several small grants to nonprofit citizen groups have gone tremendously far in promoting environmental awareness. I especially remember a garden club in Illinois that used an Office of Environmental Education grant of a few hundred dollars that enabled them to design a children's coloring book that emphasized ecological concepts and responsible environmental attitudes.

Our school used these books which we were able to obtain free through the generous help of the club. Normally the club sold them at cost to interested groups. These books were extremely popular with gradeschool children in our elementary school lecture program. Even some local churches purchased them to use in Sunday school lessons.

Environmental education depends on the preparation of teachers and citizens for immediate results. Even though comprehensive State plans for environmental education are in final stages in some States, their implementation depends on faculty and citizen support.

The Illinois State Plan for Environmental Education has noted: Many teachers and other community leaders do not have the adequate background to be effective environmental educators. To help remedy this the plan suggests: Giving teachers instructional materials that are practical for their teaching situation and guidance in how to use them, providing inservice workshops and graduate study in environmental education, and encouraging independent study and field work within the local school district.

Even in guidelines are set by State agencies for environmental education in schools, it won't be taught unless the teachers, administrators, and local boards and parents demand this kind of study.

Federal funds for teacher workshops and seminars for environmental education in communities are essential.

Many towns and villages now have environmental advisory commissions composed of community citizens who are interested in environmental improvement in their area.

In places where environmental awareness is high, these boards make recommendations to governing boards or establish ordinances. In Oak Park, the Environmental Advisory Commission cooperated with local food stores in order to label detergents designed to cut down water pollution and to eliminate excess packaging.

The committee helps to select the scholarship recepient for funds collected as part of the community wide recycling program. This high school student can use the money to continue his or her education in an environmental field.

In Franklin Park, a more industrialized area, there their environmental control commission works with the local zoning board to preserve green belts, has planted vegetation along a river to help to control erosion, and has designed a model sewage ordinance for the village.

During the first 8 months, the local citizens group that supported the establishment of the commission had about $2 in its treasury. Despite this, through donated time of citizens and small contributions, this group launched a successful environmental education campaign that involved two large high schools, elementary schools, and over 6,000 homes in a door to door campaign.

The support of community environmental groups, the setting up of advisory committees, and the teaching of environmental education in schools depends on an educated public. Without public interest, a commission cannot begin. Without a faculty advisor, a student group cannot function. Without community cooperation, environmental projects will collapse.

Instructional materials and imaginative programs designed for use in the school classroom and community are lacking or unavailable to many educators and citizens, especially those that are urban-oriented.

During hearings for the Illinois State environmental education plan, teachers and leaders stated repeatedly that they were concerned, but did not know where to obtain environmental education materials, or how to make their studies relevent to local needs.

Often these materials existed, but required wider exposure and availability. Teachers and citizens never heard about unique programs that would have helped them to avoid organizational mistakes and other problems inherent in running school community programs.

For example, last summer while working for the Federal Environmental Protection Agency region V, I participated in a new environmental education program in the inner city. This program has been submitted to the Office of Environmental Education for next year, on a much wider basis.

Last year the Environmental Protection Agency provided $200,000 for materials and about $300,000 in staff time to organize a program for high school students, who originally in the model cities summer program, had requested themselves to undertake a program that would help to alleviate problems that they faced in their community daily; they wanted an action project with tangible results rather than busy work.

The Director of Public Affairs for region V of the EPA planned a project that brought together model cities, the Department of Streets and Sanitation, the Department of Environmental Control, which enforces Chicago's antipollution regulations, and the EPA.

The students were concerned most about abandoned cars, litter, vacant buildings and lots, fire hazards, lack of sanitation, illegal smokestacks, and high noise levels from the elevated train, buildings, and vehicles.

By training the students to identify possible violations in these categories, and areas that needed attention, the EPA was able to send them out to survey the neighborhoods. Using a form based on city inspectors reports that detail solid waste problems, the EPA added sections on noise and air pollution. With the help of adult

supervisors, the students compiled the data, and made suggestions to the appropriate city department.

Often the department had the needed baskets or street cleaners to remedy the problem, but lacked enough inspectors to find the spots.

Also, the young people as members of the community had more success in talking to residents and moving around the community than inspectors from downtown whom residents viewed suspiciously because they feared a bill or notice of a building violation.

Once the people found that the students were actively trying to improve the area, residents often fixed up their buildings or grounds, or began projects through their block clubs.

In the case of noise or air violations, Chicago has strict ordinances, so that the inspectors could assign fines once the students notified them.

Mayor Daley singled out this project as a success. If it receives some Federal money, it will become a national model for urban environmental education and action.

One student explained to me the importance of the program. People in this neighborhood talk about moving out to get away, but I do not want to. I want to stay right here and get these problems fixed up, because no matter where we go, pollution is going to follow us. For once the kids in Youth for Environmental Action—YEA—feel like we are doing something to help.

Colleges and universities need new systems of environmental education to prepare people that will solve future problems.

At many schools, even if environmental courses are offered, these courses deal in generalities. At Cornell, I am working with students and faculty in experimenting with new approaches to environmental education, like having students work on real community problems for credit.

These students might monitor a nuclear powerplant, gathering long term accurate data on environmental effects, or help the local community to plan a recreational park.

At other universities PIRGS, public interest research groups, cooperate with citizen groups and State and Federal agencies on consumer information, health care program, and other civic environmental concerns.

These students and the adults that work with them are developing skills and attitudes necessary to deal with real world problems.

If given appropriate support, these kinds of projects can only benefit our country, and increase cooperation among people who are faced with common environmental choices.

I have attempted to illustrate the important influences of the Environment Education Act, despite its handicaps.

I believe that it would be premature to halt a program like this one, after it has never received a chance to fulfill its potential.

I understand that the program has never received the full funding as originally intended. For this reason, hundreds of grant applications which deserved funding never received it.

This subcritical funding prevented the Office of Environmental Education from realizing even more significant progress, because to begin with the original allocation was extremely small, in terms of the Federal budget.

The lack of funds and adequate staff stopped the Office of Environmental Education from gathering input from a wide range of citizen, educational, and nonprofit groups, or from advising interested organizations on how to design projects to obtain funds.

Between issuing criteria for grant applications and the deadline for submitting them, there were only 3 weeks—much too short a time for many groups to design a proposal and to gain approval from their boards.

Even small grant applications were extremely complex documents, requiring pages of statements, philosophies, and justification, and well as a complicated budget analysis. This certainly discouraged many organizations from applying, when ironically the grants were aimed in part at this type of community group.

Administration of the program hindered its effectiveness. It is crucial that the Office of Environmental Education be in close contact with the Environmental Protection Agency and other agencies like the Department of the Interior, National Park Service, and Department of Agriculture which deal with public education to environmental topics.

As a recipient of the President's Environmental Merit Award, a program administered through the Environmental Protection Agency, I see great possibilities for reaching students.

Now over 38,000 public and private high schools, 11,000 summer camps, and more recently many elementary schools are eligible for the program which recognizes environmental achievement.

Almost all of these programs had no Federal funding in the schools, originally, yet they achieved significant results.

A later aspect of the PEMAP program provided some funding through cooperation between the Environmental Protection Agency and the Office of Education. With Federal assistance matching local funds, the opportunities for spreading constructive programs are unlimited.

Moreover, this type of governmental commitment transcends specific environmental problems, because it demonstrates that the Government recognizes citizen efforts by more than a certificate or some publicity.

The renewal of the Environmental Education Act would support those efforts and disseminate information on programs across the country.

Perhaps the administration of the act would be handled more efficiently within the Environmental Protection Agency, through established citizen contracts, and industrial and citizen recognitzion programs similar to PEMAP.

In any case, I am confident that I speak for thousands of students and other citizens in America today whose energies and talents are awaiting opportunities and guidance in environmental service.

As Congressmen, our elected representatives, it is your responsibility to see that their awareness does not change to frustration and disillusionment as they see more and more dollars cut from programs that directly affect the quality of life.

Environmental programs in the broadest sense which include not only pollution control and public education, but social projects and support of our cultural institutions, are fading before the eyes of a critical public, even when Congress supports these programs.

Congress has the opportunity now to stand behind the Environmental Education Act, even though the present administration may not fulfill to its promises and rhetoric.

I challenge you gentlemen to take this action by supporting the Environmental Education Act, H.R. 3927.

Thank you.

Mr. BRADEMAS. Thank you very much, Ms. Stockholm.

Mr. Peyser?

Mr. PEYSER. Thank you, Mr. Chairman.

As long as I managed to call Arthur "Arthur," I would like to call you Nancy.

Ms. STOCKHOLM. That is fine.

Mr. PEYSER. Nancy, I think this is really excellent testimony and I must say I am very impressed with it. While I was an opponent of Cornell through my years at Colgate, I am very happy to join with them this morning as a strong proponent of this program.

Very frankly, I do not really have any questions. I think that you have stated more clearly here for us the feelings of young people and schools all over the country, than anything I have seen before.

Personally, I am going to send a copy of your testimony to each of the high schools in my district, because one of the things I have tried to work on in the environmental education program is to get programs going in high schools and to get young people involved on a continuing basis. I think that is what you are really saying here. Not just let's go out and clean up the streets and that is the end of our environmental kick for the year, but a real continuing program.

So, I am going to send this to each of the high schools which I represent, in the hope that this will be a stimulus to them and also that it will be a stimulus to students. I also hope that you will get letters from young people to the Congress to let us know of their concern, because it is important to have this type of input from young people who are sincerely involved.

So I really just want to thank you very much and I think you have done a great job.

Ms. STOCKHOLM. Thank you.

Mr. BRADEMAS. Mr. Lehman of Florida.

Mr. LEHMAN. I am sorry I missed most of your testimony, but do not give up the fight.

Ms. STOCKHOLM. Thank you.

Mr. BRADEMAS. Thank you very much indeed, Ms. Stockholm.

It has been a splendid piece of testimony.

Mr. BRADEMAS. Next, we are going to have a panel discussion with Mrs. Elia Mae Turner, chairman of the Advisory Council on Environmental Education, accompanied by three other members of the council.

Mrs. Turner, we are pleased to see you again before our subcommittee, with your colleagues, and perhaps you would like to present them to the subcommittee and then go ahead with your statement.

STATEMENT OF ELLA MAE TURNER, CHAIRMAN, NATIONAL ADVISORY COUNCIL ON ENVIRONMENTAL EDUCATION, ACCOMPANIED BY LLOYD HUMPHREYS, VICE CHAIRMAN; NANCY AYERS, TREASURER; AND LINDA LEE, COUNSEL

Mrs. TURNER. Thank you, Mr. Chairman.

I am Mrs. Ella Mae Turner, chairman of the National Advisory Council on Environmental Education. With me this morning are Dr. Lloyd Humphreys, vice chairman, Nancy Ayers, treasurer, and Linda Lee, counsel.

We are grateful for this opportunity to appear before you. We support the environmental education program beyond its current expiration date of June 30.

In accord with the precedent set last year in our appearance before you, I request that the text of our annual report to the commissioner of education be included in the record.

In the interest of time, I will only summarize that report and indicate our concern over developments which have taken place since the council approved those recommendations.

As we have indicated in the past, members of the council have been disappointed with the level of support, both moral and financial, provided to the environmental education program by the administration. Our recommendations for the improvement of this state of affairs are contained in section II of the report which states:

> After reviewing the serious handicaps in the implementation of the Environmental Education Act, the Advisory Council recommends: One, extension of the Environmental Education Act.
>
> Two, possible relocattion of the Office of Environmental Education. Three evaluation of the Environmental Education grants program.
>
> Four, creation of an interagency coordination committee for environmental education.
>
> Five, restructuring the Advisory Council on Environmental Education.
>
> Six, full staffing for the Office of Environmental Education.

The reasons for each of these recommendations are detailed in section III of the report.

In accordance with the administrative requirements of the office of education, the three council members present with me today, met with commissioner-designate, Dr. John Ottina on March 30 to present the annual report.

At that time, the council members raised additional questions in light of developments since the full council approved the report in late January.

Specifically, the question relate to: The future of the office of environmental education and its program in view of the administration's failure to include a request for appropriations for the program in the fiscal 1974 budget message; the future within the executive branch of any environmental education effort, the alleged backdating of fiscal 1972 grants by the office of education causing a further reduction in funds available for the program in the current fiscal 1973.

These three questions all directly concern the council's recommendations. We are further alarmed that the fiscal 1973 program for which $25 million was authorized, originally estimated to have $3.1 million

in appropriations, could be reduced by an additional reduction in destruction of the goals of the Congress.

Although Dr. Ottina was requested to reply to these inquiries in advance of our appearance before you today, there has been no response. We must express our concern and dismay over the tenor of his remarks made during the meeting with members of this council.

He indicated that the Office of Environmental Education would be phased out on a 50/50 basis over the period of 1 year following the termination of the program. He did not indicate how an office, which has never been fully staffed, would be able to monitor ongoing programs or evaluate programs already completed with but half its present staff. I refer you to recommendations 2, 3, and 6.

Dr. Ottina stated that after the termination of Public Law 91–516 in June, the office of education would have no conceptual responsibility for environmental education either as a special program or as an ingredient of other office programs.

This statement seems directly contrary to repeated expressions by the President that education must be a vital ingredient of the overall effort to achieve environmental literacy. When Dr. Ottina was asked if he saw any other repository for an environmental education program, such as the National Institute of Education, he stated that NIE was not his responsibility.

With respect to some 70 grants in fiscal 1972, which are scheduled to be charged against fiscal 1973 appropriations, thus reducing the current program from $3.1 million to $1.1 million. Dr. Ottina was uncertain.

Members of the council pointed out that both the notification to the grantees and the Congress were made prior to June 30, 1972. In fact, both documents were made available to council members and discussed with them at its meeting in Minneapolis which took place before the end of June.

Such notification has been considered an obligation of funds for the year for which they were appropriated by the Comptroller General. I refer you to 18 Comp. Gen. 363. As far as we are aware, this legal question still has not been resolved.

The members of this subcommittee are fully aware of these and other difficulties which have been encountered in implementing the Environmental Education Act. As concerned citizens, representing a wide variety of backgrounds, abilities, and interests, we fully concur with the urgency and importance of the legislative mandate contained in Public Law 91–516.

We hope that it will be possible for the Congress to act in time to continue this program and that a means can be found to insure the support and cooperation of the executive branch.

Thank you, Mr. Chairman. We will be happy to respond to any questions from you and your colleagues.

Mr. BRADEMAS. Thank you very much, Mrs. Turner, for a most helpful statement. Without objection the text of the report of the National Advisory Council on Environmental Education will be inserted in the record as you requested.

[The report referred to follows:]

SECOND ANNUAL REPORT OF THE ADVISORY COUNCIL ON ENVIRONMENTAL EDUCATION

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

OFFICE OF EDUCATION
ADVISORY COUNCIL ON ENVIRONMENTAL EDUCATION
WASHINGTON, D.C. 20202

March 1, 1973

Dr. John Ottina
Acting Commissioner
U.S. Office of Education
Washington, D.C. 20202

Dear Commissioner Ottina:

The Advisory Council on Environmental Education has recently completed a year of diligent service as representatives in advising and assisting the implementation of the Environmental Education Act of 1970 (P.L. 91-516).

Representing a wide variety of backgrounds and interests, the Council has attempted to carry out its mandated responsibilities.

As the report indicates, the Council has continued to operate under a limited budget and without formal staffing, thereby frustrating our efforts to produce more comprehensive results.

The Office of Environmental Education has also suffered from inadequate funding and staffing. This has hampered overall administration of the Act.

Bearing these constraints in mind, the Council questions that real progress in environmental education can be achieved unless and until there is significantly greater commitment by the Department and the Administration.

We urge your careful review and consideration in responding to the critical problems outlined in this Report.

Sincerely,

Ella Mae Turner

Ella Mae Turner
Chairman

I. FOREWORD

In the year since the First Annual Report of the Advisory Council on Environmental Education, the most compelling problems confronting the people of the world remain peace, poverty, population and pollution. Although peace appears to be somewhat closer at long last, progress in the other areas of critical concern to society is less evident. Most Americans are aware of the deterioration of the quality of the environment and genuinely desire to reverse that trend, but governments and institutions have been slow to respond effectively.

Since it is now widely accepted that the survival of humankind depends upon coexistence with each other and the limited earth resources which support our fragile ecosystem, we must provide the contingent education for sound resource management and environmental planning. It has also become clear that the entire educational system must be revised and revitalized to meet these needs which the Environmental Education Act of 1970 defines as "...man's relationship with his natural and manmade surroundings, and includes the relation of population, pollution, resource allocation and depletion, conservation, transportation, technology, and urban and rural planning to the total human environment."

That Act (Public Law 91-516) was created to encourage the development of programs dealing with the process of relating man to his environment. Specifically, the legislation provided for Federal grants to a variety of public and private agencies, and a public and technical information responsibility in the U.S. Office of Education. Within that office, an Office of Environmental Education, as stipulated in the law, was designated in late 1971 to implement these functions.

The Act also provided for the establishment of an Advisory Council on Environmental Education composed of 21 representative citizens to review and report on the development and progress of environmental education programs. Bogged down in bureaucratic delays, the Council finally became an operating unit in December of 1971, with 19 appointees. It continues to be severely handicapped by the lack of adequate funding, lack of any staff personnel and lack of the full number of authorized appointments.

As noted in the Council's First Report, if it is to achieve its Congressional mandate to represent the environmental education needs and interests of the people of the United States, the Council should have been involved in the following activities:

- ...*participation in the planning process for programs* under the Environmental Education Act.
- ...program review during the developmental stages,
- ...recommendation of changes and modifications as appropriate,
- ...identification of problems beyond the scope of the Council to be channelled to the proper offices and officials, and
- ...dissemination of information for general public awareness and for technical assistance to new or continuing programs throughout the country.

Despite the acute limitations indicated, the Council's three Standing Committees have carefully analyzed the status of the Environmental Education Act and the Office of Environmental Education from these perspectives. The following report details the Council's findings and recommendations.

II. SUMMARY RECOMMENDATIONS

After reviewing the serious handicaps in the implementation of the Environmental Education Act, the Advisory Council recommends:

1. **EXTENSION OF THE ENVIRONMENTAL EDUCATION ACT.**
2. **POSSIBLE RELOCATION OF THE OFFICE OF ENVIRONMENTAL EDUCATION.**
3. **EVALUATION OF THE ENVIRONMENTAL EDUCATION GRANTS PROGRAM.**
4. **CREATION OF AN INTERAGENCY COORDINATION COMMITTEE FOR ENVIRONMENTAL EDUCATION.**
5. **RESTRUCTURING THE ADVISORY COUNCIL ON ENVIRONMENTAL EDUCATION.**
6. **FULL STAFFING FOR THE OFFICE OF ENVIRONMENTAL EDUCATION.**

III. DETAILED FINDINGS AND RECOMMENDATIONS

1. EXTENSION OF THE ENVIRONMENTAL EDUCATION ACT

The Environmental Education Act of 1970 (P.L. 91-516) was passed as a result of Congressional initiative supported at the grass roots by educators, community action groups, conservationists and private citizens. The Act authorized a three year program of $5 million for fiscal year 1971, $15 million for fiscal 1972, and $25 million for fiscal 1973.

Appropriations never even approximated authorizations. Actual program funding totalled only $1.7 million in 1971 and $3 million in 1972, permitting the award of only 236 grants out of 3500 applications received. In those two years, staff and program support also came out of the line-item appropriation. The estimated program funding for fiscal 1973 is $3.1 million* with staff and program support costs borne by the overall Office of Education budget for the first time. Despite these limitations, public interest has remained high and fiscal 1973 applications are expected to reach earlier levels.

The importance of environmental education has been underlined by numerous governmental agencies, advisory committees and private groups. In its 1972 report to the President, for example, the Citizens' Advisory Committee on Environmental Quality stated that "...the quality and accessibility of environmental education in this country...must reach citizens of all ages, encompass numerous academic and technical disciplines, and utilize the broadest possible range of formal and informal educational settings...."

Due to the failure of the Office of Education to provide the Office of Environmental Education with staff, physical facilities and administrative support, the beginning of the program was delayed for nearly a year after its enactment. In the course of its discussions with recipients, examination of project reports and personal visits to ongoing projects, the Council finds that although there are

*In view of the pending expiration of P.L. 91-516 on June 30, 1973, no funds were requested by the President for fiscal year 1974. The Council strongly recommends that the Executive Branch provide full funding of any new environmental education legislation. Congressman John Brademas, Chairman of the House Select Subcommittee on Education, has introduced with bipartisan support a bill (H.R. 3927) calling for a new $60 million 3-year program.

many outstanding projects underway, these first three years cannot be considered a fair trial of the Congressional mandate. It is unrealistic to think that an environmentally aware public or an environmentally sensitized student population can be achieved in three years (or even six) with only $7.2 million (estimated) in direct funding. The need is too great and public interest too high to abandon the effort now. The program should be continued.

2. POSSIBLE RELOCATION OF THE OFFICE OF ENVIRONMENTAL EDUCATION

In recommending the extension of Public Law 91-516, the Council does not necessarily recommend a continuation of the present bureaucratic location of the environmental education program. From the passage of the Act, Office of Education and Department of Health, Education and Welfare officials have been virtually silent on the subject of environmental education despite President Nixon's own support for the concept. In his February 8, 1971 Message to the Congress, the President said:

> The building of a better environment will require in the long term a citizenry that is both deeply concerned and fully informed. Thus, I believe that our educational system, at all levels, has a critical role to play.

Throughout its bureaucratic life, the Office of Environmental Education has been subject to considerable harrassment including several office moves, inability to hire its full staff complement, delays in clearing documents and abrupt changes in deadlines.

If the Assistant Secretary for Education and the Commissioner of Education cannot assure the Congress that it will give priority to environmental education programs, as the present law provides, then any new or extended program should be located in more hospitable surroundings.

In view of the large number of pending governmental reorganizations, the Council does not have a specific recommendation at this time, but it hopes that the Congress will insist on this point in any consideration of new legislation.

3. EVALUATION OF THE ENVIRONMENTAL EDUCATION GRANTS PROGRAM

It is critically important that a careful and thorough review and analysis of the programs funded under P.L. 91-516 be undertaken. Such a review may enable the development of guidelines and model programs of national scope and significance for implementation throughout the United States.

The evaluation should be undertaken in the context of the criteria developed by the Council pursuant to Section 3 (c)(2) of the Act and incorporated in the guidelines sent to potential applicants by the Office of Education.

It would be a violation of the public trust to deny to educational institutions and citizens groups the benefits of both the successes and failures of the efforts to date.

4. CREATION OF AN INTERAGENCY COORDINATION COMMITTEE FOR ENVIRONMENTAL EDUCATION

Although the legislative history of the Environmental Education Act indicates that environmental education programs were to be "synergistic" in that they would draw not only on resources provided by the Act but also on those of other educational programs such as Titles I and III of the Elementary and Secondary Education Act, vocational education, cooperative education and the like, there is some confusion as to the extent to which this mandate has been carried out. In April 1972, the Deputy Commissioner of Education for Renewal told the House Select

Subcommittee on Education that $11.5 million would be made available through this means in fiscal year 1972. There exists, however, at least for the record, no document indicating whether or not this was done, or whether or not programs called "synergistic" in fact served an environmental education need.

However a new or extended environmental education bill is structured, the Council recommends that a federal interagency coordinating committee on environmental education synergy be created under the aegis of the Council on Environmental Quality. The committee should be chaired by the Director of the Office of Environmental Education and include provision for the inclusion of advisory representatives of states and national private agencies.

The coordinating committee should be a working group sharing information and experience in an effort to maximize the effectiveness of the national environmental education effort. It should prepare a summary of its activities and recommendations for inclusion in the annual report of the Council on Environmental Quality to the Congress pursuant to the National Environmental Policy Act of 1970.

5. RESTRUCTURING THE ADVISORY COUNCIL ON ENVIRONMENTAL EDUCATION

An advisory council can be no more effective than the program it serves and it, too, must have adequate resources and sufficient support within its agency to meet its objectives. Like the Office of Environmental Education, the Advisory Council has been beset with delays. Created more than a year after the passage of the Act, the Council was naturally unable to participate fully in the first year of grant awards. It has never had its full complement of 21 members as called for in the law.

Nevertheless, the Council has sought to do its job as effectively as possible and in all instances has received excellent cooperation from the Office of Environmental Education staff. As a result of its 16 months experience, the Council does have specific recommendations we believe could make it a more effective part of the overall environmental education effort:

1. Reduction in membership from 21 to 15;
2. Election of the Chairman by the members of the Council;
3. The provision of regular professional staff.

6. FULL STAFFING FOR THE OFFICE OF ENVIRONMENTAL EDUCATION

The Office of Environmental Education has never had sufficient staff and for the past year has not even had the full complement of staff positions assigned to it. Through personal observation of Office activities, the Council finds that it is literally impossible for the staff to keep up with the daily demands on their time and resources despite the dedication of personnel willing to devote evenings and weekends to getting the job done.

In addition to its own considerable workload, the staff has also had to service the needs of the Council. Although members have been willing to make their own travel and meeting arrangements and cooperate in any possible way, in the absence of regular professional staff it has been seriously hampered in fulfilling its own legislative mandate.

IV. CONCLUSION

In three State of the Union Messages and three Special Messages on the Environment, President Nixon has spoken of the need for environmental literacy, new values and attitudes, and environmental awakening. At the time of the Third Annual Report of the Council on Environmental Quality in 1972, the President stressed the importance of both formal and informal education to prevent the environmental movement from becoming elitist.

92-726 O - 72 - 3

The Environmental Education Act, signed into law October 30, 1970, was intended by the Congress to address the environmental needs of all citizens. It was widely believed that the Environmental Education Act and the National Environmental Policy Act of 1970 were mutually supportive laws, which read together provided a strategy for environmental protection involving standards, monitoring, enforcement, evaluation and dissemination in keeping with the mandate of P.L. 91-516 "...to encourage understanding of policies, and support of activities designed to enhance environmental quality and maintain ecological balance..."

Environmental education has received little more than lip service from the Executive Branch. We are nearly as far from achievement of its goals as we were at the time of the passage of the original legislation three years ago. In part through the efforts of the Office of Environmental Education, the needs are now more clearly articulated and there is stronger public support for an educational effort to enhance respect for the quality of life and to provide the practical tools for environmental problem-solving. Although the President has not requested additional funding for environmental education due to the potential expiration of the Environmental Education Act on June 30, 1973, it is the hope of this Council that the Congress which gave the Act life will let it continue to grow and assign it to an Agency which will conscientiously and creatively administer it.

The continued existence of the environmental education program will put us to the ultimate test: Are we sufficiently committed to environmental quality to match our resources with our rhetoric?

V. APPENDICES

APPENDIX A—THE ENVIRONMENTAL EDUCATION ACT

Public Law 91-516
91st Congress, H. R. 18260
October 30, 1970

An Act

84 STAT. 1312

To authorize the United States Commissioner of Education to establish education programs to encourage understanding of policies, and support of activities, designed to enhance environmental quality and maintain ecological balance.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Environmental Education Act".

Environmental Education Act.

STATEMENT OF FINDINGS AND PURPOSE

Sec. 2. (a) The Congress of the United States finds that the deterioration of the quality of the Nation's environment and of its ecological balance poses a serious threat to the strength and vitality of the people of the Nation and is in part due to poor understanding of the Nation's environment and of the need for ecological balance; that presently there do not exist adequate resources for educating and informing citizens in these areas, and that concerted efforts in educating citizens about environmental quality and ecological balance are therefore necessary.

(b) It is the purpose of this Act to encourage and support the development of new and improved curricula to encourage understanding of policies, and support of activities designed to enhance environmental quality and maintain ecological balance; to demonstrate the use of such curricula in model educational programs and to evaluate the effectiveness thereof; to provide support for the initiation and maintenance of programs in environmental education at the elementary and secondary levels; to disseminate curricular materials and other information for use in educational programs throughout the Nation; to provide training programs for teachers, other educational personnel, public service personnel, and community, labor, and industrial and business leaders and employees, and government employees at State, Federal, and local levels; to provide for the planning of outdoor ecological study centers; to provide for community education programs on preserving and enhancing environmental quality and maintaining ecological balance; and to provide for the preparation and distribution of materials by mass media in dealing with the environment and ecology.

ENVIRONMENTAL EDUCATION

Sec. 3. (a)(1) There is established within the Office of Education, an office of environmental education (referred to in this section as the "office") which, under the supervision of the Commissioner, through regulations promulgated by the Secretary, shall be responsible for (A) the administration of the program authorized by subsection (b) and (B) the coordination of activities of the Office of Education which are related to environmental education. The office shall be headed by a Director who shall be compensated at a rate not to exceed that prescribed for grade GS-17 in section 5332 of title 5, United States Code.

Environmental education office, establishment.

35 F.R. 6247.
5 USC 5332 note.
"Environmental education."

(2) For the purposes of this Act, the term "environmental education" means the educational process dealing with man's relationship with his natural and manmade surroundings, and includes the relation of population, pollution, resource allocation and depletion, conservation, transportation, technology, and urban and rural planning to the total human environment.

Grants and contracts.

(b)(1) The Commissioner shall carry out a program of making grants to, and contracts with, institutions of higher education, State and local educational agencies, regional educational research organizations, and other public and private agencies, organizations, and institutions (including libraries and museums) to support research, demonstration, and pilot projects designed to educate the public on the problems of environmental quality and ecological balance, except that no grant may be made other than to a nonprofit agency, organization or institution.

Prohibition.

Funds, availability.

(2) Funds appropriated for grants and contracts under this section shall be available for such activities as—

(A) the development of curricula (including interdisciplinary curricula) in the preservation and enhancement of environmental quality and ecological balance;

(B) dissemination of information relating to such curricula and to environmental education, generally;

(C) in the case of grants to State and local educational agencies, for the support of environmental education programs at the elementary and secondary education levels;

(D) preservice and inservice training programs and projects (including fellowship programs, institutes, workshops, symposiums, and seminars) for educational personnel to prepare them to teach in subject matter areas associated with environmental quality and ecology, and for public service personnel, government employees, and business, labor, and industrial leaders and employees;

(E) planning of outdoor ecological study centers;

(F) community education programs on environmental quality, including special programs for adults; and

(G) preparation and distribution of materials suitable for use by the mass media in dealing with the environment and ecology.

In addition to the activities specified in the first sentence of this paragraph, such funds may be used for projects designed to demonstrate, test, and evaluate the effectiveness of any such activities, whether or not assisted under this section.

Financial assistance, application.

(3)(A) Financial assistance under this subsection may be made available only upon application to the Commissioner. Applications under this subsection shall be submitted at such time, in such form, and containing such information as the Secretary shall prescribe by regulation and shall be approved only if it—

(i) provides that the activities and services for which assistance is sought will be administered by, or under the supervision of, the applicant;

(ii) describes a program for carrying out one or more of the purposes set forth in the first sentence of paragraph (2) which holds promise of making a substantial contribution toward attaining the purposes of this section;

(iii) sets forth such policies and procedures as will insure adequate evaluation of the activities intended to be carried out under the application;

(iv) sets forth policies and procedures which assure that Federal funds made available under this Act for any fiscal year will be so used as to supplement and, to the extent practical, increase the level of funds that would, in the absence of such Federal funds, be made available by the applicant for the purposes described in section 3, and in no case supplant such funds.

(v) provides for such fiscal control and fund accounting procedures as may be necessary to assure proper disbursement of and accounting for Federal funds paid to the applicant under this title; and

Reports and recordkeeping.

(vi) provides for making an annual report and such other reports, in such form and containing such information, as the Commissioner may reasonably require and for keeping such records, and for affording such access thereto as the Commissioner may find necessary to assure the correctness and verification of such reports.

(B) Applications from local educational agencies for financial assistance under this Act may be approved by the Commissioner only if the State educational agency has been notified of the application and been given the opportunity to offer recommendations.

(C) Amendments of applications shall, except as the Secretary may otherwise provide by or pursuant to regulation, be subject to approval in the same manner as original applications.

Federal share, limitation.

(4) Federal assistance to any program or project under this section, other than those involving curriculum development, dissemination of curricular materials, and evaluation, shall not exceed 80 per centum of the cost of such program for the first fiscal year of its operation, including costs of administration, unless the Commissioner determines, pursuant to regulations adopted and promulgated by the Secretary establishing objective criteria for such determinations, that assistance in excess of such percentages is required in furtherance of the purposes of this section. The Federal share for the second year shall not exceed 60 per centum, and for the third year 40 per centum. Non-Federal contributions may be in cash or kind, fairly evaluated, including but not limited to plant, equipment, and services.

Advisory Council on Environmental Education. Establishment. Membership.

(c)(1) There is hereby established an Advisory Council on Environmental Education consisting of twenty-one members appointed by the Secretary. The Secretary shall appoint one member as Chairman. The Council shall consist of persons appointed from the public and private sector with due regard to their fitness, knowledge, and experience in matters of, but not limited to, academic, scientific, medical, legal, resource conservation and production, urban and regional planning, and information media activities as they relate to our society and affect our environment, and shall give due consideration to geographical representation in the appointment of such members: *Provided, however*, That the Council shall consist of not less than three ecologists and three students.

Duties.

(2) The Council shall—

(A) advise the Commissioner and the office concerning the administration of, preparation of general regulations for, and operation of programs assisted under this section;

(B) make recommendations to the office with respect to the allocation of funds appropriated pursuant to subsection (d) among the purposes set forth in paragraph (2) of subsection (b) and the criteria to be used in approving applications, which criteria shall insure an appropriate geographical distribution of approved programs and projects throughout the Nation;

(C) develop criteria for the review of applications and their disposition; and

(D) evaluate programs and projects assisted under this section and disseminate the results thereof.

TECHNICAL ASSISTANCE

Sec. 4. The Secretary of Health, Education, and Welfare, in cooperation with the heads of other agencies with relevant jurisdiction, shall, insofar as practicable upon request, render technical assistance to local educational agencies, public and private nonprofit organizations, institutions of higher education, agencies of local, State, and Federal governments and other agencies deemed by the Secretary to play a role in preserving and enhancing environmental quality and maintain ecological balance. The technical assistance shall be designed to enable the recipient agency to carry on education programs which are related to environmental quality and ecological balance.

SMALL GRANTS

Limitation.

Sec. 5. (a) In addition to the grants authorized under section 3, the Commissioner, from the sums appropriated, shall have the authority to make grants, in sums not to exceed $10,000 annually, to nonprofit organizations such such as citizens groups, volunteer organizations working in the environmental field, and other public and private nonprofit agencies, institutions, or organizations for conducting courses, workshops, seminars, symposiums, institutes, and conferences, especially for adults and community groups (other than the group funded).

(b) Priority shall be given to those proposals demonstrating innovative approaches to environmental education.

(c) For the purposes of this section, the Commissioner shall require evidence that the interested organization or group shall have been in existence one year prior to the submission of a proposal for Federal funds and that it shall submit an annual report on Federal funds expended. Report.

(d) Proposals submitted by organizations and groups under this section shall be limited to the essential information required to evaluate them, unless the organization or group shall volunteer additional information.

ADMINISTRATION

Sec. 6. In administering the provisions of this Act, the Commissioner is authorized to utilize the services and facilities of any agency of the Federal Government and of any other public or private agency or institution in accordance with appropriate agreements, and to pay for such services either in advance or by way of reimbursement, as may be agreed upon. The Commissioner shall publish annually a list and description of projects supported under this Act and shall distribute such list and description to interested educational institutions, citizens' groups, conservation organizations, and other organizations and individuals involved in enhancing environmental quality and maintaining ecological balance.

AUTHORIZATION

Sec. 7. There is authorized to be appropriated $5,000,000 for the fiscal year ending June 30, 1971, $15,000,000 for the fiscal year ending June 30, 1972, and $25,000,000 for the fiscal year ending June 30, 1973, for carrying out the purposes of this Act.

LEGISLATIVE HISTORY:

HOUSE REPORT No. 91-1362 (Comm. on Education and Labor).
SENATE REPORT No. 91-1164 (Comm. on Labor and Public Welfare).
CONGRESSIONAL RECORD, Vol. 116 (1970):
Aug. 3, considered and passed House.
Sept. 21, considered and passed Senate, amended.
Oct. 13, House concurred in Senate amendments with an amendment, Senate concurred in House amendment.

APPENDIX B

ENVIRONMENTAL EDUCATION ACT FUNDING — Fiscal Years 1971-73

	1971	1972	1973
Total Appropriation	$2,000,000	$3,514,000	$3,180,000
Program Funds	1,725,000	2,999,000	3,180,000
Salaries and Expenses	225,000	465,000	**
Advisory Council	0*	50,000	50,000**

*The Advisory Council was appointed in November 1971, 5 months after the beginning of fiscal 1972.
**Disbursed from Office of Education salary and expense budget.

APPENDIX C

SUMMARY OF GRANTS in FISCAL 1972

Among 162 grants totaling $2,999,040.00 for environmental education projects announced in late June 1972 by U.S. Commissioner of Education, Sidney P. Marland, Jr., were eleven for statewide evaluation and dissemination.

The 11 States receiving such awards included Alabama, Colorado, District of Columbia, Hawaii, Massachusetts, Michigan, Minnesota, New Hampshire, North Carolina, Texas, and Wisconsin.

Most of the 162 were made under the Environmental Education Act (P.L. 91-516), though some were funded under P.L. 90-35 (the Education Professions Development Act) and one was awarded under the Cooperative Research Act (P.L. 83-531). Grants were made in each of the 50 States, the District of Columbia, Puerto Rico, and Micronesia.

Range of awards, based on preliminary estimates which are subject to negotiation, is $900 to $60,000. The average per project is $18,544, while the median award is for $13,600.

A breakdown by regions and States indicates that O.E. Region V received the greatest cash total, $510,540, and had the highest number of funded proposals, 31 (Table I). Among individual states, New York and California were the sources of the most proposals (214 and 194, respectively), received the most awards (12 and 11), and the greatest cash totals ($206,900 and $205,250).

Table I: FISCAL YEAR 1972 ENVIRONMENTAL EDUCATION AWARDS — NUMBER OF PROPOSALS AND DOLLARS PER STATE AND REGION

Region	State	Proposals Submitted	Proposals Funded	$ Funded per State	$ Funded per Region
I	Massachusetts	52	6	$82,300	
	Connecticut	47	4	61,900	
	N. Hampshire	15	5	67,800	
	Vermont	12	3	39,000	309,000
	Maine	9	1	44,000	
	Rhode Island	5	1	14,000	
II	New York	214	12	206,900	
	New Jersey	53	3	53,200	280,100
	Puerto Rico	7	1	20,000	
III	Pennsylvania	76	7	172,000	
	W. Virginia	11	1	12,500	
	Delaware	9	2	28,000	
	Virginia	27	5	44,400	364,650
	Maryland	28	1	20,000	
	Dist. Columbia	32	6	87,750	

Table I: FISCAL YEAR 1972 ENVIRONMENTAL EDUCATION AWARDS – NUMBER OF PROPOSALS AND DOLLARS PER STATE AND REGION–Continued

Region	State	Proposals Submitted	Proposals Funded	$ Funded per State	$ Funded per Region
IV	Florida	47	5	124,000	
	Georgia	26	3	74,500	
	N. Carolina	29	2	66,000	
	Kentucky	17	2	23,500	380,000
	Alabama	26	2	52,000	
	Mississippi	16	1	8,000	
	Tennessee	18	2	24,000	
	S. Carolina	6	1	8,000	
V	Ohio	52	4	96,500	
	Indiana	23	7	81,800	
	Illinois	24	7	127,440	
	Minnesota	42	6	78,300	510,540
	Michigan	62	2	67,000	
	Wisconsin	39	5	59,500	
VI	Texas	37	3	49,200	
	Louisiana	9	1	25,000	
	Arkansas	3	2	66,750	263,950
	Oklahoma	15	2	77,000	
	N. Mexico	7	1	37,000	
VII	Nebraska	8	1	18,000	
	Iowa	17	1	6,800	
	Missouri	25	2	60,000	94,800
	Kansas	6	1	11,000	
VIII	Colorado	38	4	139,000	
	Utah	8	1	13,600	
	Wyoming	4	1	9,000	
	S. Dakota	5	1	26,000	268,600
	N. Dakota	12	2	34,000	
	Montana	17	3	47,000	
IX	California	194	11	205,250	
	Nevada	9	1	5,500	
	Hawaii	11	2	33,500	
	Trust Terr.	1	1	25,500	293,700
	Arizona	16	2	23,950	
X	Washington	39	3	75,500	
	Idaho	11	2	19,000	248,200
	Oregon	40	5	68,000	
	Alaska	11	2	85,700	

Among grants of particular interest are:

To the Center for Research and Education of Denver, Colorado, for provision of technical assistance to State environmental education planning groups;

To the Center for Curriculum Design of Evanston, Illinois, for nationwide dissemination to environmental educators through regional workshops;

Eleven programs directed at minority groups (four Black, four Indian, and three Spanish-speaking);

Eleven awards to special groups and institutions (five population, two architectural, and four museums);

Thirty-one applications from among 51 Fiscal Year 1971 grantees reapplying were funded.

In all, 33 awards were made for workshops, 11 for State evaluation and dissemination, 11 for personnel training, 25 for community awareness, 66 for instruction and curriculum, and 16 for evaluation and dissemination (Table II).

Table II: FISCAL YEAR 1972 ENVIRONMENTAL EDUCATION AWARDS, BY CATEGORY, AS COMPARED TO FISCAL YEAR 1971 AWARDS

CATEGORIES	1972 E.E. AWARDS	1971 E.E. AWARDS
	# Of Awards	# Of Awards
Type A: Workshops	33	36
Type B: Statewide Evaluation and Dissemination	11	5
Type C: Pilot Projects		
Personnel Training		
(A) Inservice Educational Personnel	4	1
(B) Inservice Noneducational Personnel	4	1
(C) Preservice Educational Personnel	1	--

Table II: FISCAL YEAR 1972 ENVIRONMENTAL EDUCATION AWARDS, BY CATEGORY, AS COMPARED TO FISCAL YEAR 1971 AWARDS–Continued

CATEGORIES	1972 E.E. AWARDS # Of Awards	1971 E.E. AWARDS # Of Awards
(D) Preservice Noneducational Personnel	1	1
(E) Government Personnel	1	1
Total Personnel Training	11	4
Community Awareness		
(F) School-Community Models	1	1
(G) Environmental Education Centers	14	6
(H) Citizen Participation Projects	10	11
Total Community Awareness	25	18
Instruction and Curriculum		
(I) Elementary & Secondary Programs	7	1
(J) Supplementary Materials	18	1
(K) Curriculum Development	38	8
including Media Projects (K_2)	3	
Total Instruction and Curriculum	66	10
Evaluation and Dissemination		
(L) General Evaluation	1	1
(M) Dissemination: Information Dissemination	12	0
(N) Dissemination: Information Clearinghouse	3	0
Total Evaluation and Dissemination	16	1
GRAND TOTAL	162	74

Thirty-four awards were made to institutions of higher education, eleven of them private institutions. In addition, 29 local education agencies, 29 private (or other) organizations, and 26 private environmental organizations were funded (Table III).

Table III: FISCAL YEAR 1972 ENVIRONMENTAL EDUCATION AWARDS, BY TYPE OF ORGANIZATION FUNDED

Type of Organization	# of Awards	$ Funded
Institutes of Higher Education	34	599,900
Private/Other	29	497,450
Local Education Agencies	29	486,000
Private Educational Organization	11	381,750
Private Environmental Organization	26	376,850
Public Agencies and Organizations	7	194,940
State Education Agencies	6	176,950
Museums	4	111,800
Community Colleges/Vocational Education Schools	9	87,300
Private Elementary and Secondary Schools	4	56,600
Public Libraries	3	29,500
TOTAL	162	2,999,040

APPENDIX D

SCHEDULE OF ADVISORY COUNCIL ACTIVITIES

December 3-5, 1971	FULL COUNCIL — Organizational Meeting Washington, D.C.
January 9-10, 1972	Steering Committee Washington, D.C.
February 6-8, 1972	FULL COUNCIL AND STANDING COMMITTEES Washington, D.C.
April 13, 1972	Dissemination Committee
April 14-15, 1972	Executive Committee
April 16, 1972	Congressional Oversight Committee Washington, D.C.
June 22-25, 1972	FULL COUNCIL AND STANDING COMMITTEES Host: Minnesota Environmental Science Foundation
July 24, 1972	Legislative Review Committee Washington, D.C.
September 29-October 1, 1972	FULL COUNCIL AND STANDING COMMITTEES Washington, D.C.
December 1, 1972	Executive Committee Green Bay, Wisconsin
January 23-27, 1973	FULL COUNCIL AND STANDING COMMITTEES—Annual Report Preparation Host: National Association for Environmental Education Miami, Florida
March 30, 1973	Executive Committee Washington, D.C.
May 4-6, 1973	FULL COUNCIL AND STANDING COMMITTEES Washington, D.C.

Mrs. Turner, as you, of course, and your associates know very well, two distinguished members of your Advisory Council, Dr. Edward Wiedner and Richard Myshak, both of whom will be testifying before this subcommittee in the near future, resigned from the Advisory Council in late January.

I received from them, as chairman of this subcommittee, letters that were really quite bitter, complaining that the administration was not taking the environmental education program seriously.

That is, of course, most unusual, at least within the experience of this committee, and I wonder if you can tell us what you think about this, or what are the problems that would have motivated two such able persons to make the judgment they should resign rather than continue?

Mrs. TURNER. With your permission, I would like to refer it to Dr. Lloyd Humphreys, our Advisory Council Vice Chairman.

Mr. BRADEMAS. Mr. Humphreys, glad to see you here.

Mr. HUMPHREYS. I have very little to add over what is included in their letters. I believe that the letters are honest, frank letters, that there have been tendencies on the part of other members of the Advisory Council to take similar course of action, and they have been torn between their duty, the need to stick in there and fight, and the possibility that they were only batting their heads against a brick wall.

So I have a good deal of sympathy with the two members who resigned.

Mr. BRADEMAS. Thank you. I note, Mrs. Turner, that in your Advisory Council's second annual report, in your covering letter to Acting-Commissioner Ottina, you state that the "Council has had to continue to operate under a limited budget, without formal staffing." You, therefore, questioned whether real progress can be achieved in environmental education unless, and until, there is significantly greater commitment by the Department and the administration.

Of course, those are very serious charges. What do you think the problem is? Do you think the administration has been deliberately trying to sabotage and frustrate and destroy this legislation?

Mr. HUMPHREYS. I would like to defer that to our treasurer, Mrs. Nancy Ayers.

Mrs. AYERS. It is a very difficult question, Congressman, that you pose. I think it would be rather difficult for us to make the presumption that it was a deliberate attempt to scuttle the program.

However, the facts are rather eloquent in themselves and the Council, since its beginning, has operated under a very low budget situation, as you are well aware.

There is also the additional problem that the Council has never had any staff of its own. As I understand it, constitutionally we are not allowed to do in the format in which we exist.

Therefore, the office which is responsible for implementing the program is also responsible for providing aid to the council. That is secretarial staffing and procedural things and such other matters and the problem is, of course, they do not have an adequate staff to even do the program much less to support us, so this has been a very consistent matter.

I think the confusion and frustration that the council has experienced is due in a large part to this tremendous communications gap and lack of assistance.

It is quite obvious, of course, that the office itself would be unable to change the allocation or to change the personnel line, so it has to come from a little higher up the ladder, and I suspect that is as close to an answer as I can give you as to their intent.

Mr. BRADEMAS. Mrs. Turner, you will recall, when you appeared before this subcommittee 1 year ago, I asked you if the Advisory Council had been involved, as mandated by the Environmental Education Act, in the development of regulations for the program and in making recommendations with respect to the allocation of funds, and you answer at that time, "No."

What would you say to that question this year?

Mrs. TURNER. Mr. Humphreys will answer that.

Mr. HUMPHREYS. Yes; I think we can respond to that with somewhat more optimism this year, that we have been consulted, that we drew up a set of criteria which we recommended to the Office of Environmental Education which they have seemingly accepted.

There was some difficulties particularly with the earlier staffing of the Office of Environmental Education. At one point in time, a subcommittee of us that I headed met with members of the staff to inquire about the criteria that were used during the first year.

We asked why these criteria did not include any statement concerning the quality of the information presented in the educational program, the quality of the content? We also inquired why there were no statements concerning the importance of the environmental problem included in the criteria? We were informed that they did not wish to impose their values on other people. Instead, they had written up a set of criteria that imposed a particular educational philosophy on the prospective guarantees but without any quality controls on the material.

I think this has now changed.

Mr. BRADEMAS. How many members are there on the Advisory Council now, and I believe the law provides for 21?

Mrs. TURNER. I was just informed this morning of another person having been appointed. About how many is that?

Ms. LEE. We had 21 by legislation. We never had 21 appoinnted. We had 19 at our fullest strength. Three had resigned. If Mrs. Turner's report is accurate, it would bring it to 16 of the 21.

Mrs. TURNER. The point about that is, I was told, I gave the recommendation for people who are considered very outstanding all over the United States, Hawaii, and Alaska, and I had a long conversation with someone over in OE that was supposed to be our liaison person at that time, that I consulted, or we would rather confer on the choice of the next person.

That has not been done. There have been three people appointed since we had the conversation and the commitment, and I had left here with a list of names. They are very, very outstanding for all the United States and its environment; that has not been done at all.

In fact, one of the last members we had, when he appeared, I thought he was a guest, you see, that sort of thing. I was not even told there was a new person coming on at all.

Mr. BRADEMAS. That is quite extraordinary.

Mrs. AYERS. A point of clarification, Congressman. The announcement of the new appointee very clearly states that the life expectancy

of the Council is contingent on the life expectancy of the Environmental Education Act, and the appointment is until June 30 of this year.

Mr. BRADEMAS. Well, my mind goes back to my old friend, Sid Marland's refrain, "environmental education cannot wait."

You know, of course, my own judgment of this administration: it is most rampantly law-breaking administration of modern American political history.

The flagrant violation of the statutory mandate set forth in the Environmental Education Act may be among the more modest examples of the violation.

Let me ask your another question in that same context and referring to point 3 that you make, Mrs. Turner, in your statement, where you talk about how funds for the current fiscal year have been reduced from $3.1 million to $1.1 million.

As I understand it, this is a consequence of the fact that some $56 million in grants and contracts were illegally backdated in the Office of Education in fiscal year 1972, and that, of that $56 million, $2.025 million was apparently money for the Office of Environmental Education.

Are you in a position to tell us, or is your counsel, whether in fact that $2.025 million in environmental education moneys was illegally backdated last year?

Ms. LEE. Mr. Chairman, it was our contention that that backdating was not illegal in the sense that the Commissioner has indicated, in that it has been held by a series of Comptroller Generals' opinions that moneys are obligated when grants are awarded, the commitments made and Congress is notified.

All of these things took place before June 30, 1972, and in fact when we went to Minneapolis for our meeting which took place, I think the 23d of June, we were handed a copy of the congressional notification of the grants of fiscal 1972.

So it is our contention that those awards were made within the meaning of obligation according to the regulations and that those funds should not be charged against fiscal 1973 appropriations.

Now, when we indicated this point to Dr. Ottina and we suggested some legal backstopping for that point of view, he indicated he would try to get a prompt answer. We have not heard anything, although we subsequently did make available documentation.

Mr. BRADEMAS. When did you first ask him for that comment?

Ms. LEE. We asked him for it when we met with him on March 30, and we presented him with a letter which perhaps you would like to have included in the record and which we can make available, if you wish.

Mr. BRADEMAS. Without objection, it will be included.

[The letter referred to follows:]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
OFFICE OF EDUCATION,
ADVISORY COUNCIL ON ENVIRONMENTAL EDUCATION,
Washington, D.C., March 30, 1973.

DR. JOHN OTTINA,
Acting Commissioner, Office of Education, U.S. Office of Education, Washington, D.C.

DEAR DR. OTTINA: Pursuant to our legislative requirement and the letter of transmittal of our chairman dated March 1, 1972, we hereby submit the 1973 Annual Report of the National Advisory Council on Environmental Education.

Since the approval of our six basic recommendations of the Council at its January meeting, a number of events have occurred which require our further inquiry. Acting pursuant to the resolution of the Council at that meeting authorizing us to complete the Annual Report, we therefore submit the following questions. We would appreciate a written reply to them in advance of our scheduled testimony before the House Select Subcommittee on Education on April 17 and 18.

1. Given the decision of the President in his fiscal 1974 Budget Message to the Congress indicating that he would not seek funds for the Environmental Education program, what is to become the staff of the Office of Environmental Education as of June 30, 1974. The first, second and sixth recommendations of the Council speak directly to this point.

2. The Council's second recommendation regarding the relocation of the Office of Environmental Education is directly relevant to the recent testimony of yourself and Secretary Weinberger. Is the area of environmental education an appropriate subject for the new NIE?

3. Recent newspaper reports regarding controversy over the supposed backdating of Office of Education grants dictate that the Council inquire as to the effect of any fiscal 1972 budget reductions on the Office of Environmental Education.

We are particularly concerned about this issue because when we met in Minneapolis in full council session last June, awards for Fiscal 1972 had already been announced both to the grantees and to the Congress. GAO opinions on this point support this expenditure of appropriated funds.

We trust that your office will be able to respond fully to these questions in advance of our House hearings.

We very much appreciate the opportunity to deliver our Annual Report and to pose these additional questions.

Sincerely,

DR. LLOYD HUMPHREYS,
Vice Chairman.
LINDA K. LEE,
Counsel.
MS. NANCY AYERS,
Treasurer.

Ms. LEE. Thank you. In which we asked for a written reply to those questions in advance of our appearance before you today, so we can be better informed, and we have not had any response.

Mr. BRADEMAS. Well, thank you very much, indeed. I will just make a final comment before yielding to Mr. Peyser.

We made, I think the record will show, a yeoman effort in this committee to generate partisan support for the Environmental Education Act.

Indeed, the original bill was sponsored by two Republicans and two Democrats, as you are aware, and the bill has commanded the overwhelming support of both Democrats and Republicans in the House of Representatives and the Senate. We certainly here have not sought to make it a partisan effort, as witness the leadership Mr. Peyser has shown in urging the administration to adequately fund the program.

But I must say, as I look at the report of the Advisory Council on Environmental Education, the members of which were appointed by the present President of the United States, that I can only conclude that there has been a deliberate effort on the part of the administration to destroy this legislation.

That the administration should justify cutting off all funds in fiscal 1974, on grounds that the schools of the country have now been alerted to the need to include environmental studies in their curricula, is so bogus and phony as to defy any commonsense judgment.

So, I think we have come forward in this committee, on both sides of the aisle, to support this legislation. It is apparent to me that members of your Advisory Council have tried very hard to make it an effective program—but it is also very clear where the blame has to be assigned for efforts to weaken and cripple it.

As I said on other occasions, I was reared as a Methodist and brought up to believe it is never too late to be saved. So hopefully we can turn the administration around.

Mr. Peyser?

Mr. PEYSER. Thank you, Mr. Chairman. It is true the chairman and I do have a great deal of agreement, in fact, I think complete agreement on the Environmental Education Act. However, I would not want the statement of, "The most law-breaking administration in history" to go by as though this were something of concensus of this committee.

I would have to take quite strong exception to that, but I think we want to talk about environmental education where we do agree and are equally determined to see what can be done.

Now, I am particularly interested in your statement in reference to the meeting you had with Dr. Ottina. I think Dr. Marland is going to be before us on Thursday, and I want to speak, when he is here, to some of the things you have said in this letter.

So, I would like to go back over this briefly and be sure I understand exactly what is happening.

On page 3, where you speak of the Commissioner being requested to reply and that he has not made a response, I understand that.

Now, we get down to No. 1. It says he indicated, and I take it is in conversation with your group at that time, that the Office of Environmental Education would be phased out on a 50–50 basis over a period of 1 year.

Now, did he indicate to you on what authority this was being phased out?

Mr. HUMPHREYS. He did not.

Mr. PEYSER. Was any question raised at that time as to, on what assumption or authority or why was the program being phased out?

I am just curious. Why would he make that statement?

Ms. LEE. The thought was that the act would not be extended. His remarks, generally, in the course of conversation with Dr. Humphreys and Mrs. Ayers and myself was premised on the failure of the Congress to extend the act, and so he was speaking as though it were fait accompli so to speak, and simply a matter of taking care of the loose ends after June 30.

Mr. PEYSER. Well, now, do you feel he was taking steps or is taking steps to change the structure of the people who were at work in the staffing area of this program, prior to a congressional action?

Ms. LEE. Not to our knowledge.

Mr. PEYSER. So, in other words, what he was stating here is the assumption that this bill is going to be dead and this program will be folded into Federal revenue sharing for education.

Now, I would certainly want to be assured, and it seems to me, Mr. Chairman, that perhaps we can, based on these statements in here, that the Commissioner's office is not taking any steps at this time to change personnel or to eliminate personnel on the assumption that this act will not be renewed.

I think that, perhaps, the committee, through your office, you might raise it as a question in your meetings with them.

Mr. BRADEMAS. If you will yield, that is a very good suggestion. We shall certainly take that matter up with the Commissioner and if there are any Office of Education employees in the room reporting on these hearings, I hope he or she will take that word back today.

Mr. HUMPHREYS. May I add, Mr. Chairman, the 50–50 plan involves a 50-percent reduction by midyear 1974 and the final 50 percent by the end of the fiscal year, but Dr. Ottina indicated he expected natural attrition would account for the first 50 percent and unless the act is extended rather expeditiously, the good people will leave, considering the uncertainties that exist in that office at the present time.

Mr. PEYSER. My final question, and you must understand I only yielded but did not give up the microphone, is this: I would like to ask of your committee, in your experience over the last year of working with this legislation, in places where grants have been made and programs have been instituted, what is your evaluation of the program as it has actually functioned in the areas of these grants?

Mrs. TURNER. There is one in particular I know that had some complaints, quite a few complaints. She is a constituent of Mr. Reed's, and she had complaints about the manner in which money had been allocated to them and the difference between the last time they were granted and when they were refunded this time.

She also told me about it, that she did call Mr. Reed and tell him about it. That is the open-space plan.

Mr. PEYSER. What I am speaking about, rather than the method of getting into a program, is that once, some of these plans are really funded, have you had an opportunity of oversight on them?

Mr. HUMPHREYS. We have very spotty information available concerning the evaluation of the program to date. We consider that the primary function of the Council's oversight and that we are not expected to go out in the field and do detailed evaluation on our own.

The office has not as yet had an opportunity to furnish us with evaluation information on the program. There are good reports and there are reports that indicate some mediocre success. What the overall batting average at the moment is I think no one of us can say.

Mr. PEYSER. If I may, I have just one quick question because I realize we have another member who wants to ask some questions. Do you have the date—and this is raising the funding question again—after the grants had been approved prior to June 30, that these actually went to the contract office? In other words, we are dealing here with last year's.

Ms. LEE. We do not have the exact dates.

Mr. PEYSER. You don't know if they were held up, in other words, for many months in HEW before they went to the contract office?

Ms. LEE. We do not. It is our assumption, and I think we can say this accurately, at least, that the awards were decided upon and the obligations were made by the Office of Environmental Education, and they immediately began processing them through the structure.

Mr. PEYSER. This is prior to June 30?

Ms. LEE. I believe it was.

Mr. PEYSER. But you don't know actually when they got out?

Ms. LEE. I can't give you the exact date that something went forward to the contractor.

Mr. PEYSER. Thank you very much, Mr. Chairman.

Mr. BRADEMAS. Mr. Lehman?

Mr. LEHMAN. I have no questions. Thank you.

Mr. BRADEMAS. Thank you very much, Mrs. Turner, and I thank your associates. We are very grateful to you for having come to testify today. I especially want to commend you on the candor of your advisory council's report. Many of the advisory councils in recent years have been issuing reports that don't amount to the powder to blow them up because they are just not honest; it is quite clear that they are pablum and meant to convey nothing whatsoever.

I don't mean to say that all reports should be critical. The fact that you have addressed yourselves to tough issues and have spoken with frankness is, I think, particularly commendable, and I would make one final observation following what Mr. Peyser said.

That is: Under the General Education Provisions Act, all education laws are automatically extended for 1 year. So even if we were not to extend this act, which I believe we will do as expeditiously as we can, there is still legislative authority under which to seek appropriations for the program.

I hope, finally, you will allow us, informally or even formally, to be in touch with you as we seek to amend this legislation.

Mrs. TURNER. Yes, Mr. Chairman.

Mr. BRADEMAS. Thank you very much.

We are now pleased to hear from a panel of environmental leaders composed of Mr. Elvis J. Stahr, president of the National Audubon Society; George Alderson, legislative director of Friends of the Earth; and Tom Dustin, executive secretary of the Izaak Walton League of Indiana.

Dr. Stahr, we are especially pleased to see you, an old friend and a distinguished former president of Indiana University and former Secretary of the Army.

I want to reiterate publicly my expression of appreciation to you, which you have heard me voice on earlier occasions. For I think it was, in large measure, a speech I read that you gave some years ago that inspired me as chairman of this subcommittee to get together with some of my colleagues and put together the bill which finally became the Environmental Education Act.

In a certain sense, I hope you are not willing to disclaim it because you are the first father of the Environmental Education Act, and we are very pleased to have you with us along with Mr. Alderson.

STATEMENT OF A PANEL CONSISTING OF ELVIS J. STAHR, PRESIDENT, NATIONAL AUDUBON SOCIETY, NEW YORK CITY; GEORGE ALDERSON, LEGISLATIVE DIRECTOR, FRIENDS OF THE EARTH, WASHINGTON, D.C.; TOM DUSTIN, EXECUTIVE SECRETARY, IZAAK WALTON LEAGUE, HUNTERTOWN, IND.

Mr. STAHR. Thank you, Mr. Chairman. You give me too much credit, but I appreciate it just the same.

The National Audubon Society has a long history of environmental education activity. The society directly operates six community education centers, primarily for school class visitation and four summer ecology workshops for teachers and other adult community leaders.

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It also publishes environmental educational materials used by tens of thousands of school children and adults. The National Audubon Nature Centers Planning Division has been responsible for plans for over 200 of nature centers in all parts of the country and several abroad.

The society's interest and experience in this field go back many decades. National Audubon has championed the Environmental Education Act of 1970 since its earliest days in Congress—I myself testified in its favor before this same distinguished committee—and we have consistently urged full funding for the act because we realized that while Audubon's environmental education programs reach thousands of people each year, these are but a few of the many who can be reached through programs catalyzed by the Office of Environmental Education.

In a very real sense the Environmental Education Act has offered the whole conservation movement and certainly the Audubon movement—National Audubon, whose members now exceed 250,000 and over 280 local chapters and a similar number of affiliated societies across the country—a new opportunity to fulfill important educational purposes and to contribute more substantially to the solution of environmental problems.

For example, four Audubon societies have undertaken grants under the program: Massachusetts Audubon, one involving the planning and implementation of a statewide environmental education program; Florida Audubon, one which has permitted it to fill a gap by helping to implement the State's inadequately funded environmental education program; Connecticut Audubon, one involving inner city urban ecology programs, and Tucson Audubon, one for desert ecology workshops.

These are proven examples of the kind of catalytic effect which Environmental Education Act grants can have in fostering and facilitating a wider and more useful outreach by the private sector.

It is unfortunate that of the $45 million authorized over a 3-year period in Public Law 91-516 only $8.4 million has been appropriated for operation of the Office of Environmental Education and for grants for the development of innovative programs across the country.

It is even more unfortunate that the administration has failed to include a single dollar for the Office of Environmental Education in the President's fiscal year 1974 budget and that it has, or so we understand, severely cut its grants budget for the current fiscal year.

The former decision might be explicable on the basis that the present authorizing legislation expires at the end of fiscal year 1973, although we know of no initiative on the part of the administration to extend the act and no plans to request funding for it if it is extended.

In any event, our fears that this is more than a technical matter are undergirded by information, from sources we believe to be reliable, that a substantial part of the moneys previously available for grants in fiscal year 1973 have been withdrawn.

This is a matter which this committee is better qualified than we to check into, of course, and I hope these reports are not true after all. Certainly, I would hope that the fundamental importance of environmental education to the whole future of our country is not at issue here.

Moving to the substance of the matter, we have, as I have indicated, tangible evidence that, despite the lack of enthusiasm which some in the administration have shown for the environmental education program, the act has served a tremendously valuable role in stimulating environmental programs all across the country.

We feel that its potential for significantly greater success was very much enhanced by the appointment last summer of a new and able director, Walter Bogan. I have had the pleasure of knowing Mr. Bogan for a number of years, both as a director of the National Audubon Society and as the executive director of the Scientists Institute for Public Information, and my knowledge of his abilities and talents leads me to believe that under his leadership the office's programs would achieve very great effectiveness if permitted to go forward for a reasonable time.

The Audubon Society is fully aware, as is the administration, that the success of many programs depends directly on the initiative of people working at the local level. We believe, however, that to capitalize on the very real talents and energies which exist locally there must be some focus and facility for information exchange and for advice, stimulus, and small catalytic funds.

This is a national function meeting a national need and quite clearly can best be performed by the Federal Government, not, I should emphasize, by a big Federal environmental education bureaucracy but by a small office, ably staffed. This in our view is precisely the role that the Office of Environmental Education is now performing.

I am confident it can and will continue to perform it increasingly well, if the Environmental Education Act is extended.

There is so much that is innovative in the act that with the paltry funding it has received we have not had a fair opportunity to see how well the act really can work.

Despite its successes, and some failures, to date, the full potential of the act has yet to be realized. I believe we must give it a better chance. The National Audubon Society therefore strongly urges the passage of H.R. 3927, which you, Mr. Chairman, have had the insight to introduce along with your colleagues Mrs. Mink and Messrs. Hansen and Peyser.

Considering the compelling need for developing an environmentally responsible citizenry and the vital role that environmental education must play in satisfying this need, we believe that $60 million over the next 3 years is a realistic authorization of funds.

Mr. BRADEMAS. Thank you very much, Mr. Stahr.

Mr. Alderson?

Mr. ALDERSON. I am George Alderson, legislative director of Friends of the Earth, a national organization of 20,000 members, committed to the preservation, restoration, and rational use of the Earth.

We have close association with independent sister organizations of the same name—or a translation of it—in Australia, France, Yugoslavia, the Netherlands, Sweden, Switzerland, West Germany, and the United Kingdom, with others soon to be charted in Japan, Kenya, and South Africa. Our Washington office is at 620 C Street, SE.

We are striving to make our own contributions to environmental education through international publishing. We published the environmental handbook here and in several foreign countries, in mass-edition paperback designed to reach a wide audience.

I am submitting for the subcommittee's use a copy of another such book, Teaching for Survival, based on the teaching experiences of its author, Mark Terry. It was written as a handbook on environmental education, stressing how to integrate environmental concepts into the standard curriculum.

Friends of the Earth applauds the objectives of H.R. 3927, and we commend its sponsors for recognizing the need for continuation of the environmental education program. The program has got off to a good start in the first 3 years, showing that small appropriations—$8.4 million so far—can stimulate many new pilot projects in environmental education, and can also lead to increased State spending in this field as well.

Why would the Nixon administration seek to end this program? The answer may well be that the administration thinks the people have already learned too much about the environment. The cancellation of the SST, the decision to aim for zero water pollution, the opposition to the trans-Alaska pipeline—in each case the administration has found itself at odds with a broad spectrum of citizens who have taken the environment seriously.

Perhaps the extension of the Environmental Education Act should include a special high-level education program for the White House staff and OMB. Such a program would have helped past Democratic administrations as well as the present Republican one.

The environment has always had a poor to mediocre treatment at the top levels of Government. That is why we turn to the Congress now. Only the Congress can correct the shortsighted mistake to which the Nixon administration seems to have committed itself with respect to environmental education.

We appeal to you to give H.R. 3927 favorable action. We are ready to join with you to seek approval of this bill through the congressional process and to seek funding for it. If the administration is going to threaten impoundment of the money, let us work together to change their minds downtown.

Friends of the Earth has conducted two annual surveys of the grantees under the environmental education program, and I am submitting a copy of the results for inclusion in the hearing record.

The analysis of these results shows that the grantees on the average received only 76 percent of the amounts they requested in 1971, and 67 percent in 1972. Most grantees would have made a larger request if more money had been available. The grantees also showed a high level of satisfaction with the technical assistance provided by the Office of Environmental Education.

The principal reservation we have at the results of the survey is that many projects funded by OEE apparently focused on subjects that were not even among the seven specified in the 1970 act, while such vital topics as transportation, technology, and population were cited in less than 10 percent of the responses.

This failure of the program could be corrected by revising the selection criteria used internally by OEE. These are subject areas that need new teaching approaches and that are not likely to get proper attention without the continuation of this program.

Mr. Chairman, this is no time to kill off an important environmental program that is already giving the Nation good, usable

results. The environmental education program needs to be continued, and it needs more money, not less.

We are ready to join with the members of the subcommittee to work for the survival of this program.

Mr. BRADEMAS. Thank you very much, Mr. Alderson.

We now turn to another fellow Hoosier, Tom Dustin, of the Izaak Walton League. It is nice to see you, Mr. Dustin.

Mr. DUSTIN. I appreciate the invitation of the subcommittee chairman to present the views of the Indiana Izaak Walton League concerning extension of the National Environmental Education Act. My name is Thomas E. Dustin, and the subdivision of the Izaak Walton League which I represent includes 6,200 members affiliated in 51 local chapters throughout Indiana.

The league is a not-for-profit citizens' organization established in 1922, and whose concerns deal with all phases of the environment and of man's relationship to it.

In the context of those interests, our State organization, operating as a unit of a national organization, has engaged itself in virtually every one of the strategic and tactical campaigns to preserve and restore an environment capable of sustaining life and adding to its grace—the National Wilderness Preservation System, the Land and Water Conservation Fund Act, the Water Quality Acts through the years, the Clean Air Acts since 1963, the National Wild and Scenic Rivers Act, and a host of other progressive national policies.

We have supported the battles to save the integrity of Grand Canyon, the Redwoods, the Indiana dunes, and a myriad of other pinpointed issues.

The Indiana Izaak Walton League Wilderness and Natural Areas Committee wrote the State's landmark 1967 Nature Preserves Act. In 1968 and 1969, our members raised and contributed to the State of Indiana over $10,000 in money and equipment to inaugurate Indiana's environmental education program operated by the superintendent of public instruction. Our many Indiana chapters often make their grounds and lodge buildings available for environmental education workshops which they themselves organize, or in cooperation with the State.

Yet we pretend to no great expertise as educators. The league's membership cuts across the entire spectrum of the population. There are few occupations unrepresented in the league. Yet, educators are particularly well represented in our organization through a unique resource chapter, membership in which is limited to life and earth science doctoral degree holders, and who are at least assistant professors in these disciplines at an Indiana college or university. In this way, the league includes 35 of the most able environmental scientists in the State, some of international reputation: Dr. Durward Allen, Dr. Lynton Caldwell, Dr. Alton A. Lindsey, among them.

Certainly one of the beginnings of the Environmental Education Act became visible in the spring of 1969, when Mr. Brademas addressed our State convention in Indianapolis, and at that time requested an expression of our interest in national legislation.

The league's national organization has published several guides to environmental education, among them EP—The New Conservation. I am filing single copies of two of these league publications for the sub-

committee's interest. EP is the newer book; some 25,000 copies are in circulation in the educational community.

There simply can be no program of greater importance than full implementation of the Environmental Act. Organizations such as ours are constantly reminded that only through education is there the slightest hope of improving future decisionmaking in environmental policy.

Certainly one of the objectives must be to make what we do today unthinkable tomorrow. For it is largely in the ignorance of the impact of our actions that we find the causes of our environmental jam today. Our species has resolutely refused to identify its own survival and well-being with the health of everything that surrounds us—water, air, land, and all other forms of life.

While public attitudes have considerably improved in recent years, we still find ourselves under attack at times for "loving fish more than people." Nothing could be further from the truth. It is from a close identification with other forms of life that we carry out the fights we we do. It is from a realization that when one form is adversely affected, all others are ultimately threatened.

It is essential for the well-being of our Nation, and indeed of much of the rest of the world, that the confrontation between environmental imperatives and the developments of civilization be lowered. Our experience leads us absolutely to the conclusion that only through education is there the slightest hope of creating a public outlook capable of achieving this goal. Public opinion and our entire approach to the environment must be drastically altered if we are to move ahead in acceptable harmony with ourselves with the Earth system that surrounds us.

Surely, the most superficial sampling of the issues must lead to that conclusion—the Alaska pipeline, the total impact of fossil fuel consumption, the staggering demands on timber resources, the consequences of overpopulation, the impending assault on the western oil shales, are but isolated tips of the iceberg.

These problems also clearly indicate to us the necessity of overlaying environmental education on all phases of life and the learning process—not only in formal schooling, and not only in the life and Earth sciences; but in business, industry, labor, the physical sciences, the social sciences, communications, engineering, political science—all of the points of opinion, influence, and decisionmaking. This is not an elitist proposition. It must involve everyone at every level.

If that proposition can be accepted, then we can scarcely do more than cry in despair at what has been done thus far in implementing the 1970 Environmental Education Act. Of course, the intent and the efforts of the authors can earn nothing but praise, for great principles must have a beginning, however modest it may be.

But modesty is hardly a word for what has happened to the beginning. The fiscal authorization of some $45 million for the first 3 years of operation was small enough; but of that, something considerably less than $6 million actually seems to have been used.

Of some 4,000 grant applications, fewer than 300 seem to have been made available. It was a full year after enactment that the required Advisory Council was created. The fact is that this program has scarcely begun to begin, and is already threatened with extinction. Yet, the acceptance and enthusiasm which has greeted even the pros-

pects of the program are virtually universal throughout the country.

We are not attemping to say here that a Federal response is the panacea to this and all other social problems. Even small organizations such as the Indiana Izaak Walton League can and have helped, and have contributed money and equipment to help make it work. And we welcome the challenge to continue our support.

But we are dealing with matters that absolutely require keen-visioned overviews and coordination. We are too mobile a people; the impacts of what we do are felt over too wide an area. Bad planning in the upper Mississippi can flood New Orleans. Disruptive mining in Wyoming can deplete rangelands and increase the price of beef in Chicago—to reach out for just two examples.

There is simply no other program with the capability to address these issues. I don't care what the administration claims. If it has anything else, it is utterly invisible where it must be felt most; and it has brought nothing forward during the first 3 years of this act—which it opposed—that we are aware of, or that Indiana agencies know of.

Because of the known interest of the Izaak Walton League in my State, my telephone will ring perhaps two to four times a month from various parts of Indiana, with requests by public and private agencies for information on how to submit applications.

Many of the purposes appear to me to be well justified. And yet, I can give little encouragement, and can only tell the callers that the program is all but moribund, and that in spite of the overwhelming intent of Congress, the prospects of obtaining Federal participation are about nil.

Now, the Chairman has proposed H.R. 3927, a bill that would extend the act for another 3 years, and that would fund it at $10 million, $20 million, and $30 million over that period of time. We are spending that much in a good week over Cambodia.

I believe the Federal Government must pass this legislation. Few things it could do will produce more widespread benefits; few things will stimulate greater continued private support.

We are asking that this nominal program be continued because its effects will be multiplied a score of times or more by the additional funding, manpower, and energy that will then come forward at State, local, and private levels.

We have already demonstrated the validity of this assertion in our own State organization, which includes slightly more than every thousandth citizen of Indiana.

And we would say to the administration: If it has any better ideas on how to accelerate environmental education in the United States, let it come forward with them; otherwise, get behind this one in a bipartisan manner and in teamwork with the legislative branch.

Thank you.

Mr. BRADEMAS. Thank you very much, Mr. Dustin. Let me ask you one question about Indiana. To what extent will the State of Indiana supply State funds for environmental education?

Mr. DUSTIN. We are going through that with the legislature now. I think partly in pessimism with the Federal response to this, we did not get line items in the superintendent of constructions budget for the full three environmental education consultants who are presently employed with the State.

We may lose two of those positions because of the situation. However, I have served as vice-chairman of the environmental education task force appointed by former Superintendent Loughlin and we have completed our work and the State's master plan and guidelines are now sitting on Joe Wright's desk.

I think you may know him. He was the first of the environmental education consultants working with the superintendent. The master plan and guidelines are now on his desk waiting for reproduction. I just couldn't begin to tell you the severe depression in morale among the environmental educators over prospects of this program.

One of my close associates, Dr. Austin Ferguson, plant physiologist, is now executive director of the Merry Lee Nature Center, northwest of Fort Wayne and he has outstanding plans. It is a private foundation that made available 1,400 acres for environmental education. He visualizes this center as a community resource for the whole of northern Indiana and beyond that for that matter.

He questions me: What can I do to submit this application because we already have a major private contribution to this purpose here, in this land, and in the salary that he is being paid to carry out this program?

All he needs is a little bit of support in implementing the program that he wants, a very nominal Federal investment compared to private resources that have already been put into this.

I say: Austin, there is nothing I can tell you. The program is dead. I don't care how good a program you have or how good a proposal you have. Don't even bother to send it in until after we settle the 3927 question right here and now.

So, you have all manner of superb programs, Mr. Chairman, that are floating around looking for a relatively nominal Federal bit of attention. I can't overstress this enough, that the conservation of this country and the educational institutions are not looking for a piece of featherbedded pork barrel from the Federal Government but looking for incentives, for guidelines, for coordination and a little bit of assistance to match the huge amounts of private resources that are going into this now.

I think Dr. Stahr's organization is a primary example of this. I don't suppose there is an organization on the face of this Earth, private organization, that has done more for environmental education than the National Audubon Society.

We are pleased to support them in this important work they have done. We have to have a little bit of participation, a little bit of coordination and guidance to make this thing work at a national and perhaps even a global sphere.

Mr. BRADEMAS. Thank you.

Dr. Stahr, Mr. Dustin talked about the role of the Audubon Society, and I wonder if you can give us a generalization about the relationship between supporting environmental education through private organizations and through the elementary and secondary schools as well.

As you know, we fashioned the bill so as to make possible support for both—in the judgment that both were necessary. Do you think that is still a sensible judgment?

Mr. STAHR. I do indeed. This country is different than most others

and one of the biggest differences lies behind the question you just asked, which I suspect carries with it an assumption.

That difference is that in this country we are accustomed to having the private sector play an important role in attacks on social problems as well as on economic and other aspects of the Nation's life, and in this field of the environment, I think it is a fair claim to make that it was the private sector which really generated the concern which now is widely felt, and I must say is how strongly felt in a good many Government agencies.

We work with many levels of government, hand-in-glove, but I think also the private sector has another important role to play, and I don't want this to be misinterpreted, but it is just the old phrase, "In keeping the government honest," you might say, keeping the pressure on officials to execute the laws of the land and to carry out the mandates, the spirit as well as the letter, of the statutes and so on.

When you get down to a town which has a school and a group of private citizens who are concerned about and interested in the quality of their local environment and in the general quality of the environment of the whole biosphere, a lot can happen that just would not happen in a school without that kind of local citizen interest, pressure, and concern. There is inevitably in school systems a lot of bureaucratic rigidity, I am afraid.

It is hard to shake it. It is hard to change. You certainly couldn't expect it to happen in 2 years, but the concern of such citizens combined with the energies and desires of the young people to know more about what all of the fussing and fuming are about in the environmental arena are beginning to produce changes in the schools. We have seen this in a number of communities where we have worked, including four that I could cite right now, where the staffs of our environmental education centers have been, after years of effort, finally successful in forming actual teams with teachers in the local schools.

We learned, for one thing, that we had to get the administrators' attention and approval before the teachers could feel free to work with us. Little things like that don't cost much money, but my point is that I think it would be a sad day indeed when either the private sector is ignored or the public sector, if you will, the governmental sector, walks away from its responsibilities. In this country we need both sectors.

Mr. BRADEMAS. Thank you very much, Mr. Stahr.

Mr. Alderson, I will put one question to you. You are familiar perhaps with the line of reasoning of the administration in justifying its indifference toward this legislation. The administration cities the concept of synergism by which it means to suggest other funds are available, under other legislative authorities, for environmental programs.

I wonder if you have comments on the effectiveness of synergism money, whatever it might be, in achieving the purposes of the Environmental Education Act.

Mr. ALDERSON. Mr. Chairman, there are some real problems with the synergy approach. The administration has offered this as a concept by augmenting the small environmental education appropriations by money from other sources within the Office of Education.

One problem is that the Office of Education itself is so heavily process-oriented and they also lack the staff with the experience of

dealing with complexities of environmental problems and environmental education, that they have had a great deal of difficulty in coming to grips with the subject matter of the EEA through these other programs.

The second problem is that according to their rationale the synergy should supplement the environmental education rather than replace it. At least this is what should happen. Instead, the administration is using this as an excuse for keeping the environmental education appropriations down and now they are using it as an excuse for terminating the program.

One thing is the administration never really released the list of projects that they claim amount to this $11 million in fiscal 1972 that they claim as synergy money. They are apparently too embarrassed to release the list.

There are a few rumors floating around and you may get more on it from the Commissioner when he testifies later this week, but I have a few of these rumors that I tabulated as examples of this.

I don't think that any of these examples qualify, that any of these would meet the definitions of environmental education in the 1970 act.

Here are a few things they are doing: About $1 million under the Manpower Development Training Act goes for training students in auto emissions control technology. That is an example of what they claim is environmental education.

There is another $750,000 in fellowships under title IV of the NDEA, and that is basically just money to aid students in etimology, plant pathology, botany, and so on. They are claiming Higher Education Act title I money.

These are fellowships in just general science education. The Elementary and Secondary Education Act, title III, they are claiming some of that, too, in their synergy program. That is mostly very traditional outdoor education.

Finally, the Educational Personnel Development Act, they are claiming some money out of that information this, and in that case what they are dealing with is largely just traditional science education.

Here they are making this great claim about synergy when actually most of the things they are claiming would not qualify under the definitions of the EEA. In our view, it does not at all carry out the purposes of this. It is just an excuse for undermining it.

Mr. BRADEMAS. Well, I must say I am very sympathetic to what you have said. There was released earlier this week by the Joint Economic Committee a document commenting on the contention by the administration that it had, in some scientific, objective, thoughtful, rational way, systematically evaluated the cost effectiveness of a wide variety of programs it now proposes to terminate or reduce.

It really is an "Alice in Wonderland" kind of rationale. It no longer becomes curious to suggest that 1984 is upon us. And I do not address myself to "big brother is watching you," but only to the use of "double speak," which is represented, I suspect, most obviously by the President's budget.

Mr. Peyser, any questions?

Mr. PEYSER. Thank you, Mr. Chairman.

I have a couple of comments and one question. One comment, Mr. Dustin, that I would like to speak to you about, was your statement regarding the role of the States. While I am actively in support of not only reinstituting but really putting the money into this environmental education program, I think it is a big mistake to let the States off the hook in any way or to give any indication that the States should, therefore, not worry about this problem.

We have seen in hearings on the arts and humanities, that we held in the last couple of weeks in this committee, that many States do nothing and wait for whatever the Federal Government is going to put out, while others make a tremendous effort in this area.

So, I would just state that I do not think that your statements are any excuse, for a State, whether it is in Indiana or any place else, not making an effort to put money into environmental education.

Mr. DUSTIN. If there was any possibility of an interpretation of that kind, I would want to lay it to rest, because the State of Indiana is making substantial strides on this thing, and we have made substantial strides.

My State organization alone contributed $10,000.

Mr. PEYSER. I am not talking about the private sector, but I talk about the public area in the States. If Indiana's budget is less than last year's on environmental education, I think it is a step backward.

Mr. DUSTIN. No; I understand what you say, but actually that is not the case because these are new positions that have been proposed.

In other words, no cutback on an existing program, but we wanted to get it into higher gear and the superintendent of public instruction has just simply found funds some place to expand this thing, but what I said is that we failed to get these in as line items. If it was interpreted otherwise, I would want to set that matter right.

Mr. PEYSER. I appreciate that because I think it is important, and I want to keep emphasizing the need of the State involvement here and not sit back and see what the Federal Government is going to do.

Mr. DUSTIN. Well, I think that the organizations represented here have demonstrated, I believe, a certain degree of leadership and support for this thing at the private level and cooperating directly with the public agency.

We have, for example, 51 chapters of the Izaak Walton League in Indiana. Many of these chapters have a clubhouse and many of them, Gary Glenn Park, Fort Wayne, Marion, and others have actually organized EE workshops and invited the State, and participated with the State in planning and implementation of these programs.

So what I suggest is we have an opportunity for massive teamwork in this thing, whether it has a lot of private interest in it or a lot of interests at the public level. The city of Marion, Ind., incidentally, was one of the successful applicants for a grant.

Mr. PEYSER. Well, I agree with what you said there and I just wanted to be sure there was no misunderstanding on that part of it.

Dr. Stahr, briefly, have you had any opportunity, through the Audubon, to observe any of the programs that have received Federal grants in operation, and I might say, if I can ask for a brief answer because a quorum is just being called on the floor of the House.

Mr. STAHR. Yes, sir; I have. By happy coincidence, I have brought brief, one paragraph descriptions of two of them and somewhat shorter ones of two others which I will put in the record.

Mr. PEYSER. We would like them in the record, and if you have copies, the committee would like to receive them as well. Mr. Chairman, I ask that they may be inserted in the record.

Mr. BRADEMAS. Without objection, it is so ordered.

Mr. PEYSER. Thank you very much.

[The documents to be furnished follow:]

ENVIRONMENTAL EDUCATION PROGRAMS

CONNECTICUT AUDUBON SOCIETY

Over the past two years the Connecticut Audubon Society has operated an inner city environmental education program in the schools of Bridgeport, Connecticut.

The program was initiated at the request of the Superintendent of Schools of the City of Bridgeport, who asked the Society's assistance in introducing an environmental education program into the city's curriculum. Under a $13,000 Environmental Education Act grant, a program was created under the rubric "A Reverence for Life". It has been operated with the assistance of a full time staff member, who has trained some 26 volunteers, each with teaching or other experience with youth, to work in the city's schools, both in the school room and in out of doors sessions. The program, which begins with kindergarten and goes through the eighth grade, is divided into the following topics: Plants and Animals, Requirements for Life, The Variety of Life and Man Guarding his Environment. In addition to its work within the schools, the Society conducts teacher-training programs at its Larsen Sanctuary for representatives of each of the city's schools to enable them to carry on the program.

If the act is extended, and further grants are available, the Connecticut Audubon Society will be able to introduce the program into the school systems of other Connecticut cities from which help has already been solicited.

TUCSON AUDUBON SOCIETY

Under a $7,500 Environmental Education Act grant, the Tucson Audubon Society has been operating the Audubon Institute of Desert Ecology which conducts each year 2 eight day sessions (one spring and one summer) on desert ecology. The sessions, which are conducted by 5 University of Arizona staff members, offers 2 points of credit at the University to some sixty students.

ENVIRONMENTAL EDUCATION ACT

MASSACHUSETTS AUDUBON

Charles Roth of Massachusetst Audubon is chairman of the task force on environmental education of the state of Massachusetts and was consultant to the U.S. Department of Education in 1970 on key issues while the Environmental Education Act was being drafted. He comments on the key role which the Act has played in promoting national policy in support of environmental education, that it took passage of the federal legislation to move Massachusetts off dead center on the question of even investigating the feasibility of setting up a statewide environmental education plan.

Since passage of the Act, Massachusetts Audubon has received $50,000 in 1971 and 1972 EEA grants which have enabled it, in addition to forming the state task force, to come up with a statewide plan for environmental education, which was approved by the state, and to form a Trust for Environmental Education, which provides funds for environmental school programs, teacher training and aids throughout the state. The Trust is funded with EEA monies, but will be now seeeking private funds for FY 1974.

Roth says that even though the funds available under the act are small and, in many cases, inadequate in terms of the need, the Act has provided a catalytic force nationwide which cannot be duplicated.

FLORIDA AUDUBON

For example, the Florida Audubon Society, one of the national organization's largest components, has for a period of years been working with the State of

Florida in providing much-needed supplementary environmental education resource personnel in the state school system. The state's program is seriously handicapped by the lack of funds for its environmental teacher training and has been relying on the Society's annual environmental workshops as an important extension of its work. The 1972 Environmental Education Act mini-grant of $9,000 received by Florida Audubon has enabled it to increase its state-wide workshops from one to four, to hire a full-time one-man staff, to put out a highly successful statewide environmental newsletter, and to prepare a book now in the making on guidelines for workshops in the community. The Florida Society has applied for a small 1973 EEA grant, with which it would increase its workshops to six. Richard Tillis, environmental education consultant for Florida's Department of Education, has given the Society his high commendation for the important gains made through its assistance to the state. In this case, a cutoff in federal environmental aid would be a severe setback for an excellent citizen-state cooperative venture. I'm sure other examples will be brought to your attention during these hearings.

Mr. BRADEMAS. Mr. Lehman?

Mr. LEHMAN. One quick question. You are talking about the cost of these educational programs with relation to the cost of bombing over Laos and Cambodia and talk about the peripheral educational programs, and I get to thinking about whether they would even consider defoliation problems as a part of the educational program for environmental purposes.

Mr. DUSTIN. I was hoping one of the committee members would think of that possibility.

Mr. LEHMAN. Thank you for coming in.

Thank you, Mr. Chairman.

Mr. BRADEMAS. We want to thank all of you, Mr. Stahr, Mr. Alderson, and Mr. Dustin for your very helpful testimony.

The Chair will recess the present subcommittee session until 3 p.m. this afternoon. We hope that we can get started right on target because the Chair has to leave at 4 p.m.

We are in recess until 3 p.m.

[Whereupon, at 12:10 p.m., the subcommittee recessed, to reconvene at 3 p.m. the same day.]

AFTER RECESS

[The subcommittee reconvened at 3:30 p.m., Hon. John Brademas (chairman of the subcommittee) presiding.]

Mr. BRADEMAS. The subcommittee will come to order. The Chair wishes to apologize for his tardiness, but when the House is in session, it is hard to be in all places at the same time, even though politicians are supposed to be all things to all men.

We are going to have a panel now, composed of Rudy Schafer, Robert McCabe, Carl A. Heuther, Jr., and John Moss.

I am sure that my distinguished colleague, and member of this subcommittee, may wish to say a word of welcome to his constituents.

Mr. LEHMAN. Thank you, Mr. Chairman.

First, I would like to welcome Dr. McCabe. I think it is quite appropriate that Dr. McCabe is here now because his school not only is the largest of the community junior colleges in the whole United States, but one of the most innovative and successful, and a great deal of that is due to the leadership given by such people as Dr. Mazzico and Dr. McCabe, his assistant.

One of the things they started off is the TV college, and the first course of the TV college was environmental education, and they have

done a great deal of work with this, and one of the things that they have done is use this to teach teachers, which in turn can, like a chain reaction, be expanded into the teaching of youngsters about the needs and problems of the environment.

They have also now gone into the contractual services with other institutions of higher learning and redistributing this multimedia electronic type of teaching programs to other colleges and are getting feedback from other colleges from this program, so it is a great innovation they have done and service, and I am sure they are going to need the kind of funding that is available in the Environmental Education Act to continue their work.

The other gentleman is Professor Moss, whose brother is a good friend of mine in Miami and has done a great job in the community of community planning that we need and have done in some of our urban areas.

Mr. Moss has made a great contribution himself to south Florida and the quality of life in south Florida, so I am pleased to welcome him today.

Mr. BRADEMAS. Thank you very much, Mr. Lehman. The Chair would like to say also that he may have to get an airplane and leave here at 4:15. So he would be grateful, as would Mr. Lehman, if our witnesses could summarize their statements and try to get to the heart of the matter. All of your statements as they are prepared will be printed.

Mr. Schafer, we will begin with you.

STATEMENT OF A PANEL CONSISTING OF RUDY SCHAFER, STATE DEPARTMENT OF EDUCATION, SACRAMENTO, CALIF.; ROBERT H. McCABE, EXECUTIVE VICE PRESIDENT, MIAMI-DADE COMMUNITY COLLEGE AND PRESIDENT, NATIONAL ASSOCIATION FOR ENVIRONMENTAL EDUCATION; CARL A. HEUTHER, JR., PROFESSOR OF BIOLOGY, UNIVERSITY OF CINCINNATI, OHIO; JOHN MOSS, PROFESSOR OF GEOLOGY AND DIRECTOR OF ENVIRONMENTAL STUDIES, FRANKLIN AND MARSHALL COLLEGE, LANCASTER, PA.

Mr. SCHAFER. Mr. Chairman, members of the Select Subcommittee on Education, I appreciate the opportunity of coming before you today, both as a representative of the California State Department of Education, and as Chairman of the Western Regional Environmental Education Council. I also serve as a member of the National Advisory Council on Environmental Education, but I am not here as a representative of that group.

There is general agreement that environmental education is concerned with helping students and citizens realize that they affect and are affected by their physical environment and that constructive action—both by individuals and society is absolutely essential if we are to preserve environmental health and conserve our natural resources. There is also agreement that such educational programs cannot wait if we are to reverse our current downhill slide toward environmental destruction.

The case for governmental leadership in environmental education

was stated very well by a distinguished Californian known for his interest in environmental matters:

Governmental action to protect the quality of life in California or anywhere can succeed only if the public understands and supports that action. Therefore, the first and most important role for government is in our schools.

Far too few have studied in school or learned elsewhere the priceless and irreplaceable nature of our natural resources, the dangers that they face and the ways, consistent with the legitimate interests of industry and commerce in which they can be saved.

This statement was made by Mr. Casper Weinberger and appeared in the Los Angeles Times on October 4, 1967.

Mr. BRADEMAS. That is a great quote. I am going to use it a lot.

Mr. SCHAFER. Would you like the entire article?

Mr. BRADEMAS. Yes; I would.

Mr. SCHAFER. "Education for Conservation Has Been a Vital Need." That is the title.

Mr. BRADEMAS. Without objection, the article will be inserted in the record at this point.

[The information to be furnished follows:]

[From the Los Angeles Times, Oct. 4, 1967]

EDUCATION FOR CONSERVATION HAS BECOME A VITAL NEED

(By Caspar W. Weinberger)

"California Tomorrow," the conservation-minded group that has published numerous books, including the highly successful and provocative "California Going, Going . . ." held a one-day conference in San Francisco last week entitled "California, One State," at which one of the principal questions was what governmental actions could be taken to ensure continuance of a high quality of life here.

By "governmental action" most people think of zoning laws or large expenditures for development of mass plans or appropriations for state parks and other recreational facilities. These are all undoubtedly part of the effort needed, but unless there is far greater understanding of the various elements in our environment that added together make a good quality life, governmental action will either never come about or, if it is secured, may be ignored or actively opposed to the point where it becomes worthless.

Government action to protect the quality of life in California or anywhere can succeed only if the public understands and supports that action. Therefore the first, and most important role for government in this field is in our schools. Much more is being done now than in previous years to provide an adequate understanding among all schoolchildren of the need for conservation and an awareness of the irreplaceable value of California's natural resources, the various ways in which we can safeguard these elements in our environment for generations to come, and, most important of all, what each citizen can do to help achieve this goal.

Typically in schools in the past, students learned about the size, location and economic use of lakes, rivers, forests, but little time was spent on the changing and, in some cases, vanishing character of these priceless assets.

Occasionally students used to read of periodic depredations by fruit flies or other invaders that ruined portions of our crops, but little, if any, time was spent on the corrosive effect of unbridled industrial, commercial or individual usage of rivers, bays, lakes, forests, beaches, mountain tops, landscape views and all other things that make California such a uniquely beautiful place.

Most people deeply concerned with such matters today have acquired their knowledge and their protective feeling about our resources from fortuitous circumstances such as a love of the outdoors. Far too few have studied in school or learned elsewhere the priceless and irreplaceable nature of California's natural resources, the dangers that they face and the ways, consistent with the legitimate interests of industry and commerce, in which they can be saved.

There are of course many governmental actions that can be taken to conserve the beauties of California. Broad land-use laws, which recognize the distinctive

advantage of certain areas and which can serve as guides to local planning and zoning authorities, and which also recognize the needs of business and industry to serve an ever-growing population, can and should be adopted.

Primarily this should be a local function, but certain areas that spread across traditional county lines will necessarily require promulgation of land-use plans and their enforcement by regional agencies, such as the new governmental unit created for the Lake Tahoe region.

The state's role should be limited primarily to furnishing such assistance as local or regional agencies may request for the development of broad guidelines or general principles, and giving general information to local agencies, including solutions developed in other states.

The state government, however, should itself be bound, in the development and location of its own public works such as highways, water project units, state institutions, parks, recreational and all other facilities by the same critically important considerations of protecting the quality of life in California.

The only way this can be accomplished and the only way to prevent fatal conflicts with the state government itself is to place an overall state planning agency in the governor's office. This agency, and no other, could coordinate the development and placement of state institutions, facilities and projects so that overriding importance would be given the factors necessary to preserve and enhance our environment and our natural resources.

This agency also should work out cooperative agreements between California and the federal government so that the federal government could not, by a few thoughtless uncoordinated actions, destroy some vital part of California by authorizing a federal installation in the state without regard for conservation principles.

If everyone in California were educated to realize the unique character of the quality of life here, a vast and continuing body of public opinion would be alert to preserve and enhance what we have, and prevent the irreplaceable losses that come about through careless or ignorant governmental or private actions.

Mr. SCHAFER. Thank you.

The State of California has been actively involved in a modern environmental education program for the past 6 years. Legislation requiring instruction in wise use of natural resources and protection of the natural environment in all appropriate grade levels and subject areas, grades 1–12, has been on the books since 1968.

Later, legislation established a permanent environmental education service in the State department of education to provide a statewide leadership program and provided a source of funding through the sale of personalized license plates.

We operate an environmental education grant program and recently awarded a total of $350,000 for such projects. Because we insist on local effort and the use of community resources, the effect of this funding is nearly double in terms of programs produced.

With the assistance of a study team headed by Dr. Paul Brandwein, we recently completed a curriculum outline for a K through 12 interdisciplinary environmental education program centering principally in the areas of science, social studies, and the arts and humanities, and involving a study of local environmental problems. We are not working to implement this program statewide.

In 1967 a citizens advisory committee was established to work with the department of education in developing a statewide program. Distinguished alumni of this committee include Congressman Pete McCloskey and HEW Secretary Caspar Weinberger. The committee continues to provide leadership and expertise for our program. Their meetings also provide a public forum for the environmental education concerns of professional educators, industry, conservation groups, and the general public.

Although our program is now entirely State funded, it was created and developed through the use of Federal ESEA title V funds. We

have also used title III funds for developing programs at the local level and have a number of Public Law 91–516 grant programs underway, most of which are producing good results.

Founded in 1970, the Western Regional Environmental Education Council is a working organization of State-level education and resource management personnel from 13 States, with responsibilities in the field of environmental education. The council has as its purpose encouraging the development and implementation of formal and nonformal public environmental education programs and coordinating such activities on a regional and, through its association with similar groups in other regions, on a national basis.

The council meets twice a year and has a number of projects underway, including a State plan checklist, a guide to curriculum materials development, and a plan for developing a statewide educational resources inventory. Meetings are hosted by the various member States and include discussion and work sessions as well as a 2-day inservice education class for all members.

The council is funded through an ESEA title V, section 505 grant from the U.S. Office of Education. This program provides funding and leadership for programs involving the State educational agencies of two or more States.

Two other title V, section 505 environmental education projects are underway in other parts of the country and representatives of these projects meet and work with our western regional council.

My purpose in reviewing our progress in California and in the western region goes beyond local and regional pride. The point I am trying to make is that Federal funding and leadership were instrumental in the initiation and development of these two successful programs.

These two factors—leadership and funding—at the Federal level, are absolutely essential if we are to have any real progress in environmental education. Without such assistance, there will be quite a bit of reinventing the wheel over the next several years. Moreover, the wheels thus produced will be of different sizes, shapes, and colors and some people will never find the secret.

The California Department of Education and members of the western regional council strongly support the concept of Federal leadership and funding in the field of environmental education. We submit the following specific recommendations for the programs to be developed should H.R. 3927 be passed.

Synergy. Millions are being spent by school districts, State agencies, local, State, and Federal resource management agencies, conservation groups, and the private sector on various kinds of environmental education programs. In view of the relatively modest amount of funds authorized by H.R. 3927, the best hope for a really effective national program lies in bringing these programs and resources into some sort of a cooperative working relationship.

We therefore recommend that a national environmental education synergy effort be given the highest possible priority by the environmental education office. Specifically, we recommend that the environmental education office:

1. Conduct a federally-sponsored meeting of State Department environmental education representatives to discuss cooperative action and to set up lines of communication.

2. Establish a multiagency coordinating committee consisting of representatives of Federal agencies, private conservation groups, business and industry, State educational and resource management agencies, and others responsible for directing environmental education programs.

3. Coordinate all programs and activities conducted as part of the Federal program with appropriate State and/or regional organizations.

Grant program: The expertise of State educational agencies, USOE regional offices, and other appropriate agencies should be utilized to the fullest extent possible in implementing the EE grant program. Such agencies should be involved in determining State funding priorities, selecting specific grantees, supervising funding projects, and disseminating information and materials produced by grantees.

Federal Assistance and Information: The Federal EE program must have an adequate informational dissemination component. Public information on the program should be supplied to the media. Reports on all projects should be available, and those which have been highly successful should be given the widest possible exposure.

The services of ERIC and other informational dissemination outlets should be used to the fullest extent possible. A wide variety of services are available from local, State, and regional organizations. An inventory of such human resources should be made and plans developed for their utilization.

Sound solutions to our Nation's environmental problems must involve total resource and environmental management supported by an informed public and responsive government.

Basic to these solutions is a public with an environmental conscience—aware of what is theirs, aware of values and choices, and sensitive to the needs of generations to come.

Environmental education—both formal and informal—can help us develop these essential attitudes. We are hopeful that the Federal Government will provide the leadership and assistance necessary to do the job. You man count on our assistance for this important work.

I would like to add in closing, Mr. Chairman, that a joint resolution has been introduced in the California legislature calling upon Congress and the administration to continue the environmental education program and to restore cuts recently made in the current budget.

I do not know the status of it, but there was an indication that it would pass in good shape.

Mr. BRADEMAS. I am very gratified to hear that. Your statement is an excellent one, let me say, Mr. Schafer.

I would just ask this one question: As you have strongly endorsed continued Federal funding and leadership in order, to quote you, to have any real progress in environmental education, and as you have alluded to, what I perceive to be the pioneering support of the State of California for environmental education, and you have also referred to the western regional council, to what extent do other States in the Union emulate the use of States moneys for supporting environmental education as you do in California?

Mr. SCHAFER. Of the 13 States which I have knowledge of, well, the State of Washington has three people in the field; the State of Utah, I believe spends perhaps $100,000 a year; Hawaii has a program.

Every State in our western regional council has a funded person in environmental education. Some are exclusively in the area; some are science also.

There is good effort, but there needs to be a tying together because as I see the people are inventing wheels of various shapes, sizes, and colors and some people perhaps will never find it.

There needs to be an overall guidance and effort. We help each other in the council and I see this as something that could happen naturally.

Mr. BRADEMAS. It doesn't sound to me though, as though the States are really giving the program significant support—not to speak of support for teacher training and curriculum development.

Mr. SCHAFER. I believe you are correct there. No, there is not enough money coming from the States but perhaps with some Federal interest—I know that the grants that we have under Public Law 91-516 have triggered additional programs in support and perhaps have encouraged people to get into things.

So there is certainly a triggering effect of the Federal money and people see things, and also there is the spin off from these programs that other people can take and use and this helps.

Mr. BRADEMAS. I agree with that. I just am very dubious about the administration's judgment that, if the Federal funding for these programs comes to a complete halt, that suddenly, like money from the skies, there will be State and local moneys falling for environmental education. I just think that is a phony argument and totally unsubstantiated. They will have an opportunity to illuminate our understanding on that later.

Mr. SCHAFER. We have had to fight and claw every inch of the way for the last 6 years to get what we have got and to keep it, and you are quite right.

Mr. BRADEMAS. Thank you very much, Mr. Schafer.

Dr. MCCABE. Mr. Chairman and Congressman Lehman, I have a prepared statement that I mailed in and which apparently did not arrive. I would think that it will arrive shortly.

[The statement referred to follows:]

STATEMENT OF DR. ROBERT H. MCCABE, EXECUTIVE VICE PRESIDENT, MIAMI-DADE COMMUNITY COLLEGE

Distinguished members of the Congress, I appear before you to speak concerning the extension of the Environmental Education Act on behalf of the National Association for Environmental Education, a membership organization of over 400, all involved with environmental education in higher education. The organization was founded in October, 1971 and has grown to its present membership in a period of less than two years. This is indicative of the increased interest in environmental education within the formal education structure. In no small measure, the Environmental Education Act has had a part in stimulating this interest.

THE NEED FOR ENVIRONMENTAL EDUCATION

Man has dramatically increased the stress on the environment with each passing year. Because of the nature of that stress, there is increasing incident of breakdown of ecosystems; an analogy is an expressway system that flows freely with a certain volume of traffic and then, during a rush hour, one automobile too many enters the system, and the system fails to function. The impact of stress on all ecosystems is similar.

The young people passing through our schools today will be faced with basic decisions of critical impact on their lives. They will be faced with problems of the environment so potentially devastating as to threaten the very existence of mankind. As the most developed nation in the world, with the highest standard

of living, each American currently has an impact on the environment as much as 100 times that of a person in underdeveloped nations. Therefore, it is essential for the well-being of this nation and of the world that every individual have a fundamental understanding of the principal concepts concerning the environment in which he lives. This conceptual understanding must be sufficient in depth to allow quality decisionmaking concerning individual lifestyle and governmental activity. It is essential in providing the educational experience to individuals to understand that the environment is not only the wilderness, but rather the whole world, including the urban areas and the urban ecosystems, for the greatest environmental problems exist where there is the greatest density of population.

In my own home (Dade County, Florida) within the past several weeks, we have had an outbreak of typhoid fever among migrant workers resulting from the use of unsafe water; the announcement that the City of Miami Beach's water supply was unsafe for drinking; a major fish-kill in South Biscayne Bay; widespread power blackouts; increasing reports of the inadequacy of sewer and water systems; reports of increased air pollution; reports of increased noise pollution; consideration of a threat to the whole South Florida ecosystem with the potential development of the Big Cypress area and an urban bond issue of nearly three quarters of a million dollars to be used for sewers, solid waste disposal, rapid transit and parks. The citizenry of this country is faced with complex interrelated problems concerning population density, land use planning, transportation, water supply, the economy, air pollution, the preservation of natural areas, the quality of recreation areas, and power supply. We are really not prepared to make wise choices relating to these complicated issues. The future holds in store more complex and more critical problems than those we face today. Therefore, it is basic and essential that every individual in our formal education structure understand the fundamental concepts of the environment, for it is only in this way that he can discharge his basic responsibilities as a citizen of this country and a member of mankind.

CURRENT PROGRESS IN ENVIRONMENTAL EDUCATION AND THE ROLE OF THE STATES

A spokesman for the Administration has indicated that the mission of the Environmental Education Act has been satisfied as schools have now become alerted to the need for environmental education. I find this statement groundless for several reasons:

1) The objective of the Act was to cause programs of environmental education to be instituted, not to only alert institutions to the need for such programs.

2) Environmental Education is very complex in that it is multidisciplinary and based on he understanding of principles and concepts which interrelate all disciplines. The teachers in this new area have not been equipped through their training to deal with this complex issue.

Over the past year, I have operated one teacher training workshop and helped to plan three others. It was an eye-opening experience, for the level of information that the participants brought was far below that which had been anticipated. They had great interest in the environment but extremely limited skills. If these people are representative, and I have no reason to think that they are not, the task of preparation of teachers in this area has a very long way to go.

3) The materials and tools needs by teachers of environmental education are just beginning to emerge. The modular structure for high school environmental education has just been developed through a grant under the Environmental Education Act and several modest beginnings on the development of support materials have taken place, but again, this has only been a beginning.

4) It has been suggested that the States take a greater role in supporting environmental education. It must be pointed out that the role of the States will be that of supporting the operations of these programs, and that in a situation where enrollments aer stabilizing in formal education, a major task exists in re-ordering the curriculum to make room for environmental education and realigning retrained, well-equipped faculty to handle this new teaching assignment. In the past, in growing enrollment situations, it has been possible, when introducing new subject matter, to keep existing faculties and to add new faculty to teach in the new areas. In a stable situation, the inroduction of new subject matter is a great deal more difficult. To my knowledge, the states have supported the operational costs for environmental education programs in the schools. What is needed from the federal government is the development money to prepare the staff and provide the tools and basic concepts for the operation of such programs.

THE SYNERGISTIC APPROACH

There has been a great deal of discussion concerning the synergistic approach for the funding of environmental education projects. I would like to note a program that has benefited from this approach. However, I wish to preface the description of this program by expressing a serious reservation that I have concerning environmental education.

The synergistic approach makes the assumption that existing programs concerned with education can provide funds for environmental education programs within the framework of their guidelines. The major weakness in this concept is that environmental education is concept-based and interdisciplinary in nature. Each existing Office of Education program has specific objectives and guidelines for operation. They are, for the most part, disciplinary in nature. Therefore, it is virtually impossible to fit environmental education programs into the framework of discipline-based guidelines. The illustration which I provided was only successful because the participating organizations marshalled their own resources to continue the program where federal funding was not available. In fact, by far the largest percentage of development money was provided by the institutions.

The College Man and Environment Program

In the summer of 1971, a small grant of MDTA funds was made to develop a curriculum for environmental technicians. Within the framework of that development, a general education program in environment was conceived as a core for the technician training.

That Fall, a consortium of 30 colleges met and, using the work of the MDTA project as a base, developed a general education modular curriculum appropriate for college freshmen and the general adult community.

A publication of the American Association of Community and Junior Colleges presented this curriculum.

Miami-Dade Community College, utilizing its own funds, developed a television learning program based on the modular curriculum. It included television documentaries, a computerized instructional management system, and appropriate printed materials. It is presently in use in five cities and will be on open-circuit television in 30 major American cities in the Fall of 1973. It will also be in use this Fall in New Jersey penitentiaries through the sponsorship of Mercer County College. It is possible that the enrollment for this Fall alone could exceed 30,000 persons and the viewing audience could be even greater.

In the summer of 1972, an EPDA grant was given to Miami-Dade Community College to train college teachers of environmental education and to develop a replicable workshop that could be inexpensively conducted by institutions in each of the federal districts. Three of these districts have received EPDA funding for workshops in the summer of 1973. As a byproduct of the 1972 workshop a substantial teachers' resource manual has been developed, including principal concepts, student learning objectives, and learning activities. It is currently being bid for publication.

As a further byproduct of interest in this project, a slide exchange service has been developed by Miami-Dade Community College using the modular curriculum as a filing system for classifying slides.

Syracuse University and Miami-Dade Community College also received a grant under Public Law 480 to develop case study materials concerning the environment, pairing Yugoslav and American cities. These materials will conform to the modular curriculum. As a byproduct of this project, arrangements have been made for the Miami-Dade television learning system to be used in Yugoslavia this coming Fall.

THE NEED FOR THE CONTINUATION OF THE ENVIRONMENTAL EDUCATION ACT

The work envisioned in the Environmental Education Act has just begun. The Act should be continued as the need for environmental education programs in the United States is more important than ever, and yet the level of training and experience of the personnel in education is extremely limited. The conceptualization of the programs has just begun, and the development of effective learning materials is in its infancy. No other legislation provides for the specific needs of the development of environmental education programs. It is essential to the future well-being of mankind that each and every citizen have a fundamental conceptual understanding of the environment. Only then can we expect the quality decisions that are necessary to maintain a quality life. The Environmental Education Act is needed to provide the impetus for continued development of environmental education programs.

Dr. McCabe. I would like to depart from what was in the statement and touch on four topics very briefly that follow the questions that have been raised today and those are the roles of the States, the synergism, the effectiveness of grants that have been given, and the paricular need for this special legislation.

My text deals very much with the basic need for environmental education. With regard to synergism, let me say I have been involved with a project that I think is an example of what can be done, but before I describe that, I would like to comment that the problem with the concept that environmental education by its nature is interdisciplinary or perhaps adisciplinary. Its problem center—you must deal with all of the disciplines in an approach to the understandings. All of the other acts have special concerns, and you can't expect the funding to occur for a multi- or interdisciplinary curriculum development project under an act designed for one discipline, so that it is difficult for the synergism to occur for this reason.

I would like to describe one project that has worked properly and involves MBTA money. It involves the Environmental Education Act. It involves EPBA money and Public Law 180 money. This was a man and environment college curriculum project that was begun with an EPDA grant for the training, for preparing the curriculum to train environmental technicians.

The group decided that to train environmental technicians you had to have a general education component, so the EPDA money served to develop a general-ed component aimed at college freshmen. This was then picked up by a consortium of colleges with their own funds to develop a modular program that could be used at the freshman level or general adult public.

Following that, there was a brief publication of this by the AACJA. Following that, Miami-Dade Community College picked up the project developing a man-environment television learning service including 30 television documentaries, instructional management system, computerized teacher guides. This is currently in use in five cities on open circuit TV in the country. In the fall, they will be in use in 30 cities including Washington.

Interestingly, we have just contracted whereby the New Jersey penitentiary system to put the series in the New Jersey penitentiaries. Following that, there was an EPB, a workshop this past summer for both training college teachers in environmental education and for building a package replicable workshop that could be run inexpensively in each of the regions of the country to train a volume of college teachers.

Out of that as a byproduct came this document, which is a research source manual for teachers that includes the ideas of hundreds of people about what is important in this modular frame that we have developed. It has lots of ideas. It is a place where people can pool ideas.

Mr. Brademas. And this focuses on environmental education?

Dr. McCabe. Yes, using the same modular frame all the way through. Following that, we have developed a slide exchange in which about 40 colleges are participating again using the modular frame as a filing system in effect. Following that, there was a Public Law 180—or is it Public Law 408?

Mr. Brademas. Public Law 408.

Dr. McCabe. 408 grant; and a group of our people have just come back from Yugoslavia where they are developing some case study

materials that can be used in our classrooms here, comparing Yugoslavian and American cities with similar problems and looking at it from all of the perspectives you can.

As a byproduct of that, the Miami-Dade service will be used in Yugoslavia on the air this coming fall. So here is an example of synergism that can work. Basically I don't believe that the problems, because of the fact that it is interdisciplinary and most of the other areas where things could be funded, are preserved.

I think this hits on one of the important problems. I am basically an economist with a specialty in education, or educational economics and we are moving through a period of stabilizing enrollments, during which time the problem is a shifting of priorities rather than an adding.

You could introduce new curriculums before when you were growing because you simply hired new people to do that and kept the ones you had. When you are stable, you have to shift and you have to get the people who are there to pick up and do these new things.

It is another kind of operation and quite a bit more difficult from the standpoint of economics. But the States are going to support the operation of these programs. What they are not going to do is to provide the money to introduce the new ideas, to train the people to do it. There is no indication that this is happening.

What they are doing, and I think properly, is that as the shifts occur and as the programs replace other programs in the basic curriculum, they are supporting basic support to run the programs. With regard to effectiveness of the grants, I would like to say that I think just illustrating with a few of the things I commented before this afternoon you can see that there are real results that you can touch and feel and they are affecting thousands of people around the country so that the grants, although it has been a very small operation, really has been effective and you can see the results.

They are real and tangible and the evidence, I think, is very good in this regard.

With regard to the particular need for funding from this act, we have just begun a momentum with the college project I just described that is a 3-year process. This year the National Association of Environmental Education has just completed within the last several weeks under a grant from the Office of Education a correction guide in a modular frame like the college frame but for high schools.

Projects are now beginning to emerge within that framework that of the potential to spread that curriculum and work in the same way the college one has been spread. Yet, it is not going to happen in a day or year. It is going to take time. I would emphasize that in the period that the young people must live through as the decisionmakers of this country, we are going to face environmental problems of a level that we have not even conceived. It is going to be a real part of every one of their lives and there must be a basic conceptual knowledge that can serve as a framework for good decisionmaking and not by a few, but by the general population.

For that reason, I think it is most important that this act be continued. Thank you.

Mr. BRADEMAS. Thank you, Mr. McCabe. Could you tell us what the National Association for Environmental Education, of which you are the president, is?

Dr. McCabe. Yes, it is a membership organization in its second year with 500 members who are college people involved in environmental education.

Mr. Brademas. Thank you.

Mr. Lehman. You have this open college now. I just wondered whether you give college credit for serving in college.

Dr. McCabe. Well as an ex-member of our faculty, we might be able to arrange it.

Mr. Lehman. Dr. Huether?

Dr. Huether. Thank you, Mr. Chairman and Mr. Lehman. Today has been something of an education for me as well as trying to understand some of your concerns. I have certainly been impressed, not only with the testimony but the way in which you have handled the committee activities, and I sincerely hope you find the needed strength to continue this aspect to a successful end.

Mr. Brademas. Does it look as though I am suffering that much, Dr. Huether? These have been mild. You should come to see the administration's witnesses.

Dr. Huether. I am almost willing to pay to come back here to do that. Out of all the excellent testimony, I simply wanted to reemphasize what I felt in Mr. Dustin's testimony was particularly strong, and that is that we do indeed have a dedicated corps of environmental educators doing a fantastic job without any of the pork-barrelling one might be concerned about.

It seems to me we have got to give them the kind of support that you are trying to do. I want to try to make comments on the current withholding. Even though others have done so, I feel the need to add a few points myself. I will say a couple of brief things on the extension itself and them some comments on population education.

I would like to briefly state for you my relevant background concerning this testimony. I have had the privilege of directing National Science Foundation Summer Institutions in population education for secondary school teachers for 3 consecutive years, served as a population education consultant to the population reference bureau here in Washington, D.C. during 1971, chaired the Population Education Committee of Zero Population Growth, Inc. this past year, and have been heavily involved in interdisciplinary population and environmental education at the University of Cincinnati since 1969.

Before commenting specifically on the extension bill, I would like to comment on the potential withholding of 82 million of the 83.18 million which has been available for grant awards through the Office of Environmental Education this fiscal year.

I am appalled and dismayed by this proposed administrative action, and find it clearly retrogressive at the worst possible moment in the brief history of OEE. I simply cannot conceive of how the relatively small corps of true environmental educators in the country can be expected to move this vital new area of education forward if actions such as these are taken.

I believe this is a grave error of judgment, and will result in turning away much of the top talent recently attracted to this critical area on the basis of one they envisioned.

At a critical time when this energetic and dedicated corps is attempting to institutionalize environmental and population education

in many parts of the country, a cutback of this magnitude would effectively destroy the program before Congress has had a chance to review its performance of the past 3 years, and decide whether to continue it on the basis of merit.

As to the unfortunate timing, it comes when practically all of the groundwork, but none of the results, have been achieved. The Congress should be fully aware of the human toil expended in the development of there over 1,000 grants.

Thousands of individuals were willing to donate their talents to this end because of what they thought could be accomplished with the money available in OEE; with this potential withholding, the trust they held will have been betrayed.

In addition, in order to present high quality proposals considerable resources have been consumed from a good many community and educational institutions which could ill afford them without the higher probability of being funded. As late as March 2, these organizations were led to believe the 3.18 million level of funding would be available.

As one of the 25 reviewers of these grant proposals who spent 8 days to help insure the integrity of the grant reward process, and because bleary-eyed in the process as well, I wanted to give my judgment in maximum utilization of these funds. I feel deceived and frustrated. My frustration is based on what I know to be the quality of the proposals received by OEE, and what these funds could accomplish.

As with any set of proposals, they represent in quality a bell-shape curve of distribution; however, the 150–200 top proposals which could be funded with $3.18 million are unquestionably of high professional quality which can move environmental education forward.

As an OEE grant proposal reviewer for 2 consecutive years, I can assure you the quality of the proposals this year has, on average, markedly improved.

Concommitantly, the administrative procedures for the grant review process have also been substantially improved by the OEE staff, and at a significant cost reduction.

Many of these above remarks are equally applicable to your consideration of the extension of the Environmental Education Act. Environmental and population education, in their important sense, are now only in their infancy. In both instances, we are in the crucial transitional phase of moving from volunteerism to institutionalization of these educational areas.

What is so desperately needed is financial support to insure that this transition is accomplished. In most private and public institutions, and this is particularly true of universities, no startup funds are available, although these institutions will commit themselves to longer term support if seed money through grant support is obtained.

This seed money from the Federal Government is equally important in legitimatizing these areas as valid ones for educational institutions to pursue. And I believe that is particularly important for population education.

There is no question as to the importance of the current need for teacher training and curriculum development in both environmental and population education. Practically all of our inservice teacher corps of the country has not had formal training in either of these areas, except what has been available through such summer institutes

as those provided by the National Science Foundation and some State departments of education.

Most of our preservice teachers still do not obtain adequate training in either area before they graduate. A cadre of K–12 environmental curriculum units are currently available, but refinement and implementation of these units remain for the future.

A comment on population education: This cadre of curriculum units I just spoke about does not exist for population education, and to a considerable degree, "pop ed" lags behind as well in teacher training and legitimatization of the field.

It can, of course, be subsumed under environmental education, but there are valid reasons, both academic and societal, for it standing alone. There are several underlying conceptual frameworks which provide exciting academic bases, and there is general agreement that population understanding and literacy are a vital concern for society.

One measure of current level of ignorance, as given in the report of the Commission on Population Growth and the American Future, is that "approximately 6 out of 10 questioned in (their) 1971 poll either did not know or could not guess the size of the U.S. population within 50 million persons." Certainly I think we would agree that is a basic beginning of trying to understand population dynamics.

The OEE staff has come to accept population education as a more important component of its responsibility, and for that I am very pleased. The advisory council of this office also has expressed its interest and concern about "pop ed" through a recent resolution, which I have appendixed, although this resolution was not included in its annual report as I understand was planned. And I am somewhat sorry I didn't get a chance to say that before, because it would have been interesting to ask the advisory council why that was not done.

Finally, one of the most important areas of environmental and pop ed, and the one to which OEE directly speaks, is the development of community involvement in the educational process. This means involving our students and adults in specific community concerns in a problem-solving approach, where they are actively involved in environmental issues in the local community.

This, of course, is not a new concept, but OEE is uniquely empowered to carry out this activity. No other program in OEE is as flexible as the Environmental Education Act in providing funds for the range of both cognitive and effective educational experiences.

Now that we have finally seen the need for developing an environmental literacy and ethic, we have the opportunity to make this a meaningful and lasting educational experience for the students. Embodied in this approach is the following Chinese proverb which you may remember: "I hear, and I forget. I see, and I remember. I do, and I understand."

To date, there are few areas of the country where environmental educators have been able to make this proverb come alive for their students. It is your hands to see that many more come to understand its true meaning and significance. Thank you, Mr. Chairman.

Mr. BRADEMAS. Thank you very much, Dr. Huether.

Next, Dr. Moss. Again, Dr. Moss, if you could try to summarize.

Dr. Moss. Mr. Chairman, I was trying to say I am perfectly willing to stand on my statement, which you have there, and simply pass

along, give you a chance to sort of catch up because I think everything has been virtually covered that I could say.

Mr. BRADEMAS. Your full statement will be included in the record, Dr. Moss.

[The prepared statement follows:]

STATEMENT OF DR. JOHN H. MOSS, PROFESSOR OF GEOLOGY, DIRECTOR OF ENVIRONMENTAL STUDIES, FRANKLIN AND MARSHALL COLLEGE, LANCASTER, PA.

I am very grateful for the opportunity to submit to you some ideas in connection with your deliberations of House Bill 3927 to extend the "Environmental Education Act."

I come before you wearing two hats: One, that of a geologist; the other, that of an educator.

I am sure you need no college lecture on the predicament in which Man finds himself with respect to the delicately balanced environment in which he lives and with which the quality of his life is interwoven. As a geologist, however, I am in a profession which is fortuitously placed to gain insights into the causes of some of the imbalances between Man and his environment. One basic failure has been that we have not understood or acted intelligently about the natural processes active on the surface of the Earth. We have acted as if Man was above Nature, that he could totally control it, instead of seeing that we are part of Nature and must seek how to adjust our actions to larger "natural order". This failure to understand "the system" has led to some sorry situations:—the pollutions, water, air, noise, and visual;—problems growing out of improper waste disposal;—misguided use of our land;—exorbitant damage from floods, earthquakes, landslides, and coastal hurricanes; and others.

A second breakdown I see as a geologist is the failure of Man to understand sufficiently the ancient and present-day processes which are responsible for the essential earth resources we use in our daily lives. We have been particularly wasteful of our non-renewable mineral and energy resources. We have acted as if earth resources in this country were limitless and now as shortages have appeared, alarm has risen and disagreement as to how to proceed has set in.

Despite efforts by some to minimize these difficulties, the problems are very real and as further population increases exacerbate them, we are going to have to take more vigorous action to protect our planetary life support system and to concentrate more effort on developing and husbanding our earth resources.

Putting on my other hat as an educator dealing principally with college students to a lesser extent high school students, I would like to make two points. In my judgment, the young people of the Country are far more aware of environmental problems than most people my age. They realize that these "new" problems may be the most pressing issues they will have to deal with. They realize that Man cannot continue to treat the Earth the way he has in the past. Their eagerness to understand better the nature of these complex problems is a challenge to our educational system.

This concern reaches below college and high school levels. Last Thursday, under the auspices of the Lancaster Environmental Action Federation (LEAF), I spoke to 600 6th graders in the Manheim Township Middle School in Pennsylvania about the scientific basis and human effects of the Hurricane Agnes flood in our country. Their interest, curiosity, and number of questions was amazing to me. It is not only young people however, who are seeking to improve their understanding of environmental problems. Within the last fortnight, I also had an opportunity to participate in a heavily attended symposium on Energy sponsored by the Pennsylvania Chamber of Commerce and later to speak to a large evening adult class on solid waste disposal problems held at Nolde State Park, an environmental education facility financed in part by federal funds in eastern Pennsylvania. Five years ago attendance at such sessions would have been sparse. Not so now. Today, there is sincere interest and growing concern at all age levels, which is requiring a lot of rethinking and retooling with regard to what we are teaching.

This leads to my second point, namely that education is the keystone to solving the "environmental mess". Some of the problems can be solved by economic incentives or legal action. Our best hope, however, lies in developing a better-educated citizenry which has a clearer understanding of the basic geology of this planet, the principles of ecology, and the economic, legal, and philosophic complexities of environmental problems.

To add strength to existing educational programs and develop whole new environmental facets to the Country's educational system is a prodigious task. Continued federal leadership is needed. With the assistance of federal funds, some states have developed Master plans for Environmental Education and are setting about to implement them. The Environmental Educationa Act has made possible a number of "pump priming" efforts. I believe it assisted in developing plans in Colorado and New York. A few scattered innovative small projects have been funded in Pennsylvania. The States cannot do the job alone. Many worthwhile projects cannot get off the ground. The extension of the Act and expansion of its funding are essential if the significant educational strides already undertaken are to be extended and expanded.

I would like to further support a 3-year extension of the Act. Environmental education projects are highly complex because they are interdisciplinary. They take more than the usual amount of time to organize and get running smoothly. To mature properly, an environmental project must not from its inception be operating under the threat that its funds will be cut off before it has time to prove its worth. One year, or two years is too short a time to develop a strong program.

In conclusion, I would like to further urge that this extension be passed so that Environmental Education's status as an entity is maintained. Because of the growing severity of environmental problems for the future of the Country, we should not gamble that funding for education in this field might be siphoned off to some other use by a revenue sharing plan that passes the responsibility for dividing up funds to state governments. I would submit that upgrading of science in our schools in the last decade following the launching of the Russian Sputnik has been largely due to the federal government maintaining control over the distribution of funds, developing a panel system for grant evaluation which showed remarkable fairness and equity in decision making. I hope Environmental Education will fare as well. Thank you.

Mr. BRADEMAS. Let me ask you for a brief comment on the following quotation.

The Federal Government has spent a total of 85 million to support this demonstration program, i.e., environmental educational, to develop really innovative ways of teaching students about the relationship between man and his environment. The primary purpose was to alert school systems of the need to include the environment in their curricula. This has been accomplished. The separate Federal funding can no longer be justified.

Do you have any comment on that?

Dr. MOSS. I certainly have. That statement is very, very premature. Pennsylvania, my home State, is just getting started, getting itself organized to try to set up environmental education.

So I would say that that statement is completely wild.

Mr. BRADEMAS. Dr. Huether, do you agree with that statement?

Dr. HUETHER. It certainly does not hold for Ohio. We are struggling mightily to get—we have one full-time person in the entire State in the area.

Mr. BRADEMAS. Mr. McCabe?

Dr. MCCABE. I think the statement is without foundation in that the purpose of alerting people to the fact that there is a need for environmental education in itself has not been accomplished and I can't see that that is the aim of the act. The aim of the act is to develop materials and programs that in fact can be put into operation which is quite another matter from alerting people that there is a need, and I think the alerting of need has not even been accomplished.

Mr. SCHAFER. I think a modest beginning has been made. It would be a shame to lose what little momentum we do have. No, I would not agree with the statement. We need much more emphasis in this area and it is very important that we get this assistance.

Dr. MOSS. Mr. Chairman, since I didn't get a chance to make a full statement here, could I just reenforce one point? I don't think we are

here asking that the Federal Government take over funding projects like this on and on and on. Pump priming is what I am for, and I think Pennsylvania, for example, needs it still.

Mr. BRADEMAS. Well, I appreciate that observation, Dr. Moss.

I was of course simply quoting from a memorandum submitted by the Office of Management and Budget to the Joint Economic Committees in support of the President's elimination of any money at all for fiscal 1974 or the Environmental Education Act programs.

As I have earlier said I find no really serious rationale, objective, or justification for the administration's conclusion. It seems to me to be a product of their rather narrow categorical ideology, if I may paraphrase the rhetoric of this administration.

As I shall have to move over now to the floor, and then try to get an airplane, I want to take this opportunity to express my appreciation to all of you for this very thoughtful testimony. And I should like also to say a particular word of appreciation to Mr. John Yolton, whose testimony I have read and I commend him on it as a spokesman for the United Auto Workers. I have the honor of representing many of his union's members in the Third District of Indiana, and I am especially gratified, Mr. Yolton, to see that one of the great labor unions in the United States is showing such pioneering leadership in the field of environmental education. I hope to be in touch with you at some point in time to discuss ways of stimulating activity along those lines in the Third District of Indiana.

Having expressed my appreciation to all of you, I would like to turn the chair over to my colleague from Florida, Mr. Lehman, who I know will very ably chair the rest of the proceeding. I hope you will allow me to be excused.

Mr. LEHMAN [presiding]. Mr. Yolton, we are pleased to welcome you and you may proceed.

STATEMENT OF JOHN YOLTON, VICE PRESIDENT FOR CONSERVATION AND NATURAL RESOURCES (U.A.W.), SOLIDARITY HOUSE, DETROIT, MICH.

Mr. YOLTON. Mr. Chairman, on behalf of our union, I am grateful for the opportunity to appear here today in support of H.R. 3927, because the extension of the Environmental Education Act for 3 years and increasing the funds to $60 million over that period is certainly one of the prerequisites if we are to have hope of ever securing a quality life in this and future generations.

The public must be made to understand the relationship and interdependence of man and his environment. Such understanding is imperative as we increasingly develop the technology to meet growing demands for housing, transportation, energy, industrial production and recreation—often to the detriment of those natural resources upon which we must depend for survival.

If we are to preserve and manage our natural resources, we must encourage citizen participation by promoting strong environmental education programs.

We recognize the fact that scientists, technicians, and skilled workers cannot act alone in the conservation effort, nor can Government or business or any group of conservation agencies. Environmental problems can only be solved through cooperative effort. The prime initiators

of action to deal with the problems must be informed, concerned, and active citizens. Only through comprehensive and continuous environmental education can the public become aware and subsequently involved.

Agencies presently engaged in environmental control and management are often hampered by the lack of citizen support due to inadequate environmental information and education. Environmental education at all levels is needed—grade school, high school, college, university—through teacher training programs and formal and informal adult education.

Environmental education is a particularly urgent need in the urban centers where young people, industrial workers, retired workers, and unemployed are removed from nature and too often from recreation opportunities. Where nature appreciation and recreation are not a normal part of the environment, they should be introduced through environmental education in school in the community.

One big hope for us all lies, of course, in the capability of those members of the scientific-educational estate who are not indentured to the corporate status quo of 1973 to help generate a new ecological awareness—but here in Washington there the funds must come from to provide these environmental educators with the necessary tools to accomplish this task, we find the administration taking evasion and counterproductive actions instead of providing the deserved leadership.

It appears that in this term, as in the term just ended, the administration will continue to underfund the programs necessary to solve our massive problems including shoring up the battered, plundered, and rapidly deteriorating environment we all depend on for survival. This record clearly reflects that the Environmental Education Act of 1970 has also suffered from these fiscal constraints:

In fiscal year 1971, only 74 of almost 2,000 requests for grants were funded.

In fiscal year 1972, only 162 of 1,650 proposals received were funded.

With the continuing news reports of Presidential vetoes and impounding of appropriated funds, how can we be more optimistic about the fate of the pending requests for funding environmental education in fiscal year 1973.

This is deplorable to us, for from the environmental standpoint, we are all living along a fault line; or, as in the lines of Matthew Arnold, "Wandering between two worlds, one dead, the other powerless to be born."

The urgent need to move from a polluted to an ecologically viable environment when compared with the minimal numbers of environmental education programs actually funded to date—in itself mandates the extension of the Environmental Education Act and the increased funding provisions.

This lack of adequate funding in limiting the quantity of environmental education programing has also impaired its quality by restricting environmental education to only certain segments of our society while virtually ignoring other important segments.

These omissions and voids are tragic because all environmental and conservation organizations with whom we work and discuss the problem of solving our environmental crisis are generally in agreement that the only way we can achieve a healthy livable environment is

through widespread concerted citizen action coordinated by broadly based coalitions.

We feel this will never happen as long as a substantial portion of our adult population—the industrial workers—continue to remain almost totally unexposed to environmental education programs. We, therefore, request that more serious consideration be given in the future for substantial Government funding assistance to environmental education toward this important citizen grouping.

The UAW has long been active in financing environmental education programs for our members, their families and their neighbors in the communities where they live. In addition, we have also sponsored and/or funded many environmental education programs on a national scale including the United Action for Clean Water Conference held in Detroit back in 1965 and furnishing the seed money to start Environmental Teach-In, Inc., which was the national organization that then coordinated the "Earth Day 1970" across the country. Under Senator Gaylord Nelson's concept, that became then the National Coordinating Group that ran the national Earth days in 1970.

I add along with my copy of the testimony some of my pamphlets we have used over the years in connection with our environmental education programs in substantiation—not to prove that we have been at it longer or harder than others—but to substantiate the point that for all we have done, we have barely scratched the environmental education surface of our own UAW membership and so much more has to be done, but we just don't have the type of financial assistance or teaching aids and things that we need from the environmental scientific area of our society and I don't think they can come up with them until they get more funding. There are many more millions of industrial workers outside our union who have received nothing at all in the way of environmental education.

There are a lot of things that we think workers can do when they receive the environmental training that we feel that they need and should have a shot at, and deserve, because many of the people that come to our schools and institutes already have the respect of their peers. They have been elected, et cetera, and then you have this multiplying factor. If they become environmentally sophisticated and conscious of the problems, when they get back in their factories and communities that this will have a pyramiding, a multiplying factor, so per capita-wise we think it would be mighty well spent and too little has been spent under the Environmental Education Act to date.

We just can't meet the needs which our own membership expects from us financially, and there has to be somewhere, we feel, some help. When we can't help ours to the extent that we should, then Government should help and we say that there is many, many millions of industrial workers in the urban areas that do have a right to hopefully be exposed to some environmental education.

Environmental education geared for industrial workers is all important to overcome the relative noninvolvement of many industrial workers and their families in environmental matters and develop support among working people to challenge environmental degradation and to participate in projects aimed at environmental control.

However, these programs should be designed selectively as existing materials and resources prepared by environmentalists on the whole

are judged by worker-education to be sometimes irrelevant, ineffective and not always suited for industrial worker use.

Materials which had been prepared on environmental education are often good for our staff use, but not for direct use with the membership.

In our union, emphasis has been placed on development of specific programs of environmental education because of the precise knowledge about the potential participants—they include many who have been turned off by traditional education systems, and feel they respond to educational methods and materials such as union educators have designed realistically.

Thus we include the use of video tapes, for example. This is based on experience that more learning will be achieved through creative use of such media.

There should be opportunity for learning regarding acceptable anti-pollution standards and how to evaluate whether their community meets minimum standards, what resources are available for help, techniques in organizing people to take action and follow through on projects, and how to apply learning to their local community.

In addition, there should be learning as to how to identify the power structure in the community, particularly that which is charged with responsibility for stopping pollution and what techniques are needed for bringing about change.

It will also be necessary for learning to take place about the local structures to collect data and evidence to get adequate enforcement, and how to use the Government structure to get changes.

Workers can learn appropriate roles in taking individual responsibility. They can learn appropriate roles in the legislative process at local, State, and National levels. They can learn specifically how to work on environmental problems with their own families, neighborhoods, and communities.

In their plants and in their homes and neighborhoods, they are vitally affected by severe problems of air pollution, water pollution, noise pollution, and apathy of peers and neighbors.

Housewives are major purchasers of household equipment and supplies. For example, soaps and detergents are presenting perplexing problems to the average housewife with conflicting public information available. The impact of wives and others on family purchasing and daily practices has not yet begun to be explored among blue collar families.

Our membership has demanded more help in environmental issues than UAW resources permit. There has been limited capacity to respond. There has been inadequate opportunity to document experiences or prepare materials which could be helpful to other community groups.

A recent event in our union's environmental education program helped motivate us to utilize this opportunity to urge extension of the Environmental Education Act.

During the week of February 4–9, 1973, the UAW Family Education Center at Black Lake, Mich., our union's conservation resource development department brought together 150 chair persons and/or committee members, of our local union conservation committees for the purpose of training them for 5 days in environmental education.

With extensive use of qualified environmental leaders with national conservation and environmental backgrounds serving along with our

own Conservation Department staff members as resource discussion leaders—and with selective use of visual aids including closed circuit TV videotape showing from the National Public Broadcasting Service's current series on the "Human Environment Earthkeeping"—all educational and training aspects of this program were a smashing success.

However, our satisfaction is dampened by the realization that we only had been financially able to train representation from less than 10 percent of our 1,500 local unions in this program.

At least to this degree then, we share with educational institutions and responsible individuals the deep sorrow and concern that accompanies the realization that expanded environmental education is still urgently needed while the commitment to finally achieve this end has not been made at this late date.

We, therefore, urge the prompt enactment of H.R. 3927.

Mr. LEHMAN. I want to thank you for your testimony and also commend the spirit of the UAW in involving itself into these kinds of causes which you have a long history of so doing.

I have just a couple of quick questions. I would like to see enough funding in this kind of a bill so that institutions other than colleges and schools can qualify for the environmental workshops and environmental meeting that you had where you wouldn't have to pay for them out of our own pocket.

I think we must attack this educational problem on many levels and I can't think of a better way than this sort of pilot plant.

Mr. YOLTON. We would like it very much, too.

Mr. LEHMAN. Hopefully in the not too distant future, we can give you this kind of assistance. Even under the present act, I assume you could apply for grants for these kinds of things. I don't know, but I think you are certainly entitled to your fair share.

Mr. YOLTON. It is a rather sensitive question. We have applied and we keep getting turned down.

Mr. LEHMAN. Well, what else is new?

Mr. YOLTON. OK. Your point is well taken.

Mr. LEHMAN. Anyway, how is the union doing on this exhaust emissions controversy between Ruckelshaus and the factory?

Mr. YOLTON. We are waiting, of course, to get the full scope of what the ruling does mean, the extension and everything. We were a supporter at the very beginning of the Clean Air Act along with six other environmental organizations back when it was first enacted. We always hoped that the companies will be able to come up with a clean engine because we need it in our community, our society, we need a healthy climate, and it is only going to come about if we cut out a lot of pollutants that go into the air, and we certainly hope that they will be able to come up with a clean car in some way and we are very sorry that they have not to date been able to.

We are waiting to see just what will happen.

Mr. LEHMAN. Well, I can pursue a lot of questions, but the hour is getting late and I want to thank you again for coming.

Mr. YOLTON. Thank you.

Mr. LEHMAN. The next gentleman is Mr. Richard Miller. For the record, Mr. Miller is director of the Nevada Advisory Committee for Environmental Education. Environment is one thing you have plenty of out there.

STATEMENT OF RICHARD G. MILLER, PH. D., CHAIRMAN, NEVADA ADVISORY COMMITTEE FOR ENVIRONMENTAL EDUCATION

Mr. MILLER. Yes. I wish you would come see.

Mr. Chairman, I want to thank the committee for squeezing me in. I came overnight particularly at my own expense because I missed out 3 years ago to say what I felt was important and I didn't want to miss the opportunity today. The State of Nevada has a State board of education which is elected and does its own administration.

It has by statute as of 2 years ago an Environmental Education Act which provides for this committee and for technical staff in the superintendent's office, but nothing beyond the provisions of regulation K–12 education, and has the provision for working in the community with groups and so forth.

I wish to say that I am greatly concerned that the provisions of the previous act be continued under H.R. 3927. And our committee feels that we have a lot to correct out of the faults of the past 3 years. Out of the 3 years of administration the State of Nevada got a total of $5,500 in grants. That was honoring one grant but it was only one-third of what was asked for in that grant so that even what we conceived of as possible is not being accomplished with that small amount of money.

We don't want to beg geographical entity and so forth, but we note that we are the lowest amount of any in the States and even the categories that have been honored by the staff under the Act in granting these awards, these categories don't always cover all of the needs certainly, and the schoolchildren of Nevada are not getting anything out of tais because the grant goes to a community project of awareness programs for decision-makers.

That is proceeding very well and I think you would be pleased, but meanwhile that is a very small token. I wish to say that we are very proud in Nevada that Jim Sawyer, one of the authors of the previous bill has known what we were doing in Nevada and I believe this had some effect on his authorship starting some 11 years ago.

His children have come to Nevada for environmental education and we are continuing to have a stream of Sawyers.

I wish to speak in behalf of the funding that the Congress has been doing over the past. I don't believe that there is any substitute for the congressional mandate and the mandated funds have come to Nevada to allow us to accomplish things that we couldn't have possibly done for ourselves.

The State of Nevada has not been able, without raising taxes which was a political problem in the last several years, was not able to fund any programs of its own. The present legislature has before it a program, a bill for funding this and we believe that it will go through as part of the Government's budget, but it again is a very low amount.

The volunteerism has been adequately expressed by other people in testimony here and I can only say that this is typical throughout the country so far as we know. I don't believe that the revenue sharing is going to solve any of our problems for the mandate of Congress. I believe that we won't be able to get those funds directed into the channels for environmental education if it is left to the local integrity.

I appreciate the opportunity to speak. I have entered testimony with you in a written statement and that is to the effect that we would like

to see more money and more time if we are to meet what Congress feels is the crucial need of the committees.

I am certainly not in agreement with any administrative suggestion that the schools have been served with an example. It is hardly trickled down to that point. We very much need your support in getting this legislation for us and for the other States.

Mr. LEHMAN. Thank you, Mr. Miller. I agree with you that the need is for mandated categorical funds because as you said, if they have to compete against funds for other kinds of programs, sometimes the environmental educational funds will get sidetracked.

Mr. MILLER. That is correct.

Mr. LEHMAN. I assume you keep an on-going program that way?

Mr. MILLER. Yes.

Mr. LEHMAN. I hope you will go with some hope that we will be able to get this bill through and enact it and provide a continuation of this Environmental Education Act. Although Nevada is not the most crowded State in this country there is no part in this country I think, that is immune from the effects of what we are doing to our environment.

Mr. MILLER. Well, sir, I would like to add that we have particular problems in some States, particularly in Nevada where the sensitivity of the environment, that is the sensitivity of the soil to only certain levels of pollution or absorption since the lack of water the commitment of water to numerous other purposes gives us a real problem.

Mr. LEHMAN. You have a fragile sort of environment.

Mr. MILLER. Yes; and our children need to learn that at an early stage in order to live in harmony with it.

Mr. LEHMAN. Thank you again.

[Supplementary information follows:]

NEVADA ADVISORY COMMITTEE FOR
ENVIRONMENTAL EDUCATION,
Carson City, Nev., April 16, 1973.

CONGRESSIONAL SELECT COMMITTEE ON EDUCATION,
House Office Building,
Washington, D.C.

GENTLEMEN: Herewith I submit a statement of concern asking for the passage of HR 3927, an act for Environmental Education. We believe the States need more assistance in developing policy, curricula, and expertise. They also need financial grants for projects, available to local organizations and groups.

We believe the Office of Environmental Education has not brought the country to a satisfactory state because of a shortage of money. More money and more time are needed if the intent of Congress to meet the crucial needs of communities throughout the land is to be realized.

We urge the passage of HR 3927.

Sincerely,

RICHARD G. MILLER, *Chairman.*

Mr. LEHMAN. I think that covers our hearing for today. I again want to thank the people here for making these hearings a rewarding experience for me, and I hope a constructive and creative background for the program that this committee in trying to provide. Thanks again.

[Whereupon, at 4:20 p.m., the subcommittee was adjourned.]

AMENDMENTS TO THE ENVIRONMENTAL EDUCATION ACT OF 1970

TUESDAY, MAY 15, 1973

HOUSE OF REPRESENTATIVES,
SELECT SUBCOMMITTEE ON EDUCATION
OF THE COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met, pursuant to call, at 9 a.m. in room 2261, Rayburn House Office Building, Hon. John Brademas (chairman of the subcommittee) presiding.

Present: Representatives Brademas and Quie.

Staff members present: Jack G. Duncan, counsel; Martin La Vor, minority legislative associate; and Christine Orth, assistant to majority counsel.

Mr. BRADEMAS. The Select Subcommittee on Education of the Committee on Education and Labor will come to order for the purpose of further hearings on H.R. 3927, and related bills to extend the Environmental Education Act for 3 years.

The Chair should point out, for the benefit of those present here today, that this is the second hearing we have held on extending the act. On April 17 we heard from a distinguished list of public witnesses, who gave strong support for extending the program.

Today we will hear from Richard Myshak, executive director of the Minnesota Environmental Sciences Foundation; my distinguished colleague from Minnesota, Bill Frenzel; and a panel including: Thomas W. Offutt, vice president of the Cleveland Institute on Environmental Studies; Principal John Fender and Teacher James Henry of Davey Junior High School, Kent, Ohio, and three students: Melinda Merryfield of Cardinal High School, Middlefield, Ohio; Valerie Raines of Kirk Junior High School, East Cleveland, Ohio, and Doug Smith, Davey Junior High School, Kent, Ohio.

The Chair would like to announce at this time, also, that on Thursday, in room 2175 of this building, we will continue our hearings on extending the Environmental Education Act.

On Thursday we will hear from Hon. Sidney P. Marland, Assistant Secretary for Education of the Department of Health, Education and Welfare; accompanied by Walter Bogan, Director of the Office of Environmental Education.

Mr. Myshak, if you will come forward at this time we will be pleased to hear your statement.

The Chair might observe that we do have a meeting of the Committee on Education and Labor at 10 a.m., on the minimum wage bill, so we will probably have to conclude about the time they need us for a quorum.

Mr. Myshak?

[The statement referred to follows:]

TESTIMONY PRESENTED BY RICHARD J. MYSHAK, EXECUTIVE DIRECTOR, MINNESOTA ENVIRONMENTAL SCIENCES FOUNDATION, INC.

Driving home from work one evening recently, I listened to the radio announcer tell of a young lad in a northern Minnesota community facing a judge for some minor offense. The judge noticed that the young lad, disheveled and unkempt, wore only one shoe. The judge asked the lad, "Did you lose a shoe?" The lad responded, "No, sir, I found one."

On October 30, 1970, the Environmental Education Act, PL 91-516, was finally signed into law. Mr. Chairman, your adeptness and leadership, with the bipartisan support of your colleagues in Congress, brought to Americans that shoe they were looking for and found.

It has been proven that the educational world characteristically responds in some fashion to national priority. United States Public Law 91-516 establishing the Office of Environmental Education and the many state environmental education acts relating to environmental conservation education established without a doubt that environmental quality through education is a leading national goal. Arriving at national standards and guidelines is a major goal yet to be achieved. Underpinning the successes achieved, locally, regionally, or nationally, is citizen and organizational awareness and understanding—the mission of all environmental education programs. Without the aforementioned, there can be no rational support for environmental quality, nor rational examination of the many alternative solutions to our current environmental problems.

In his Environmental Protection Message, delivered to Congress on February 8, 1972, President Nixon stated "The starting point of environmental quality is in the hearts and minds of the people. Unless the people have a deep commitment to the new values and a clear understanding of the problems, all our laws and programs and spending will avail little." In his introduction to the First Annual Report of the Council on Environmental Quality, August 1970, Mr. Nixon stated, "We must seek nothing less than a basic reform in the way society looks at problems and makes decisions. . . . It is also vital that our entire society develop a new understanding and a new awareness of man's relation to his environment—what may be called 'environmental literacy.' This will require the development and teaching of environmental concepts at every point in the educational process."

And then Assistant Secretary Sidney Marland, our nation's highest education official, has stated that environmental education is "education that cannot wait."

If environmental education is education that cannot wait, and if we are to achieve 'environmental literacy,' and if such goals require the 'development and teaching of environmental concepts at every point in the educational process,' and if we are to provide means by which laws, programs and spending are to be understood and benefits gained—I then ask where is the support today to back up those noble phrases?

We are all aware of the glaringly weak support given to environmental education by the Office of Education. As you know Mr. Chairman, on January 31, 1973, I submitted by resignation to the Secretary of the Department of Health, Education and Welfare from the National Advisory Council on Environmental Education. Attached to this testimony is a copy of that letter in which I pointed out my major reasons for resigning and in turn offered to serve the Office of Education further if my efforts would be effectively channeled. On April 20, 1973, I received a letter from Secretary Caspar Weinberger in response to my resignation. He informed me that Commissioner Designate John O. Hima would respond more fully to my concerns—soon! To date—no response. I tendered my resignation from the National Advisory Council because it frees me to work without restraint in seeking extension of PL 91-516.

The intent of my testimony is to point out how important the Environmental Education Act has been to the many groups around this Nation whose sole purpose is to develop and implement materials and programs in environmental education—programs that will "create a deep commitment," "create environmental literacy" and will not wait. Not only has the Environmental Education Act provided funds for environmental education but so has the Vocational Education Act PL 90-576, and the Elementary Secondary Education Act PL 89-10, Title III and others. Most of these are now in danger of being abolished by the Administration. What have these types of funds meant to groups such as the one to which I am associated?

For the past six years I have served as executive director of the Minnesota Environmental Sciences Foundation, Incorporated. Our Foundation was established to provide leadership in curriculum development, teacher/adult training and natural area development and utilization programs. A summary of accomplishments in these areas follows:

24 published units of instruction.
59 unpublished units of instruction.
Published Teacher and Resource Managers handbooks with 15 accompanying units of instruction for use on governmental natural resource areas.
Published a handbook for vocational-agricultural students entitled "Managing Natural Resources—Air, Water, Soil and Habitat for Wildlife."
179 school and park sites developed and programs planned for outdoor learning experiences.
1,772 student participants in youth programs conducted.
324 programs and classes, ranging from 2 to 175 hours in duration for 9,095 teacher participants.
Approximately 4,500 adult leader participants in workships, classes, etc.

During this period, we have had the use of $1.32 million from the federal government toward assisting in developing and implementing the above—but more importantly, it stimulated us to seek through contracts and fees another $1,000,000 and contributions totaling $425,000. The public recognized federal confidence in our efforts and have willingly provided matching and incentive contributions.

We, in the Minnesota Environmental Sciences Foundation, feel that we have given a dollar performance for each dollar gained. We are prepared to validate this with unsolicited testimony from local, state, national and international sources—and yes, the U.S. Office of Education.

I suppose we could ask, has the need for environmental education waned? Is that why the Administration is so energetically seeking to abolish the Office of Environmental Education? Let me assure you that the need for environmental education has not waned.

In 1971, Governor Wendell Anderson, by executive order, created the 30 member Minnesota Environmental Education Council. The Council, among its many tasks, set out to assess the environmental education needs of Minnesotans. This assessment was accomplished as follows:

(1) Written surveys were directed to all of Minnesota's public school districts, approximately 100 voluntary organizations throughout the state that are interested in some aspect of environmental education, and all municipalities over 2,500 population;

(2) Six fact-finding meetings were conducted at strategic locations throughout the state, at which representatives of educational institutions, voluntary organizations, governmental units, and business and industry made recommendations regarding needs in their respective areas of interest;

(3) Review was made of proposals submitted by various organizations to to the U.S. Office of Education for funding environmental education programs as described under P.L. 97-516, Section III; and

(4) A symposium was conducted on environmental education in post-secondary institutions, and attended by representatives of most of Minnesota's colleges and junior colleges and several vocational-technical schools.

From the surveys of school districts it was found that:

83% of the districts report that development of an environmental education program is needed, but

only 2% have a formal policy regarding the program;

12% have budgeted funds for environmental education, and

21% have assigned responsibilities for environmental education to a specific person.

21% of the districts report that adult citizens have asked that greater emphasis be placed on environmental education, and

30% state that students have made similar requests.

The school districts go on to report that:

17% have provided environmental education training for their teachers on the local level, while

89% say they need area workshops on environmental education for their teachers, and

85% would like environmental education consultants to come to their schools to conduct in-service training programs.

50% of the schools are using environmental education materials obtained

from the Department of Education and Department of Natural Resources, and

23% are using such materials obtained from other public agencies, but

90% state that they need more and better curricular materials directed to the local schools' needs.

From Minnesota's voluntary environmental/conservation organizations:

93% report that environmental education is a major goal of their organizations;

83% have resource people available to work with other groups, but

only 41% have actually conducted workshops or classes during the last year, and

4% have received state or federal grant funds to conduct their programs.

78% say they need information about and coordination with other groups to operate effectively,

50% would like opportunities for training sessions for their leaders.

From the six regional fact-finding meetings:

establishment of resource teams made of local environmental specialists with the direct involvement of local school systems;

development of mobile materials and resource units for use by schools and community organizations;

more emphasis on adult education, particularly directed toward local decision-makers;

more use of local leaders as resource people;

establishment of regional environmental education councils;

provisions for communities to develop programs which fit their unique needs;

ready availability to each school district of an environmental education coordinator; and finally,

"regional development and implementation is the only method which can really succeed."

Among Minnesota's municipalities, the survey results show that little in the way of environmental education efforts are presently taking place:

only 18% report having an environmental advisory commission;

11% have sponsored environmental education activities, yet

71% believe that they should be promoting and assisting with a variety of environmental activities ranging through pollution control and abatement, recycling, urban planning and environmental education programs.

Clearly, these major segments of Minnesota's population recognize the need for enhanced environmental education efforts and are expressing interest in helping meet this need. Over 95% of the schools have responded to the survey questionnaire, and more than 85% of the voluntary organizations and 60% of the municipalities have done so. These respondents and people from throughout the state who participated in the six regional fact-finding meetings have left one message that has overshadowed all others—"We're interested in doing the job, but we cannot do it effectively without guidance and coordination that is readily available to us on the local and district levels." Is this data going to be different anywhere else in these United States. I would venture to say—No!

These data strongly indicate a need for assistance—assistance that is slow in coming. These needs are the "education that cannot wait." How can we meet these cries for help?

On June 30, 1973, the present Environmental Education Act expires. The Chairman of this Committee, Congressman John Brademas introduced on February 7, 1973, HR 3927, a bill to extend the Environmental Education Act. The bill includes new levels of funding. I compliment Mr. Brademas once again for assuming the leadership in environmental education—he has become our champion. However, I am also pleased that he has gained bipartisan support. On Monday, April 16, 1973, Congressman William Frenzel, 3rd District, Minnesota has introduced an amendment to PL 91–516.

Congressman Frenzel's amendment retains all of the program support areas of the original legislation. However, his amendment strengthens the Environmental Education Act by doing the following:

(1) Decentralizes the Office of Environmental Education by establishing regional offices of environmental education and advisory councils.

(2) Reorganizes the National Advisory Council on Environmental Education, reduces its size and makes its chairmanship elective from within the membership of the Council, by Council members.

(3) Places the grant-making responsibility in the regional offices where the needs are more adequately understood and known.

(4) Creates a system of accountability from the local to the national level and from the national to the local level—in both cases through the appropriate state agencies, commissions or councils and the regional office and its council.

(5) Creates a system by which effective communication, dissemination and technical assistance may take place.

(6) Provides for R.F.P.'s (requests for proposals) on both the national and regional levels to satisfy programs and research that have overarching national and regional implications.

(7) Calls for an immediate national assessment of needs and trends in environmental education in order that appropriate funding levels by Congress may be authorized and appropriated.

I urge the members of this Committee and the Congress of the United States to consider this amendment and the many pleas for long-term support of environmental education.

Mr. Chairman, in your address to the Conservation Foundation Forum on March 2, 1973, you emphatically stated that you were not going to roll over and play dead on this issue. You went on to plead for help for this effort. Mr. Chairman, we know too well that you do not roll over and play dead. And in response to your request for help, let me say that on May 9–11, 1973, just across the Potomac, 19 representatives from national organizations whose membership exceed 10,000,000 met for the purpose of ratifying the Articles of Incorporation and Bylaws of the *Alliance for Environmental Education* and to begin the Alliance's program efforts in advancing sound environmental education practices. As that individual who convened this convention, I can assure you, Mr. Chairman, that this legislation will receive appropriate consideration and the support you will receive will be overwhelming.

Mr. Chairman, members of this committee, sound education is a common cause, and environmental education is the cause of everyone. If it isn't, we can return to that courtroom in northern Minnesota and view another scene—the judge asks the young lad, "Did you find a shoe?" And the young lad responds, "No, sir, I lost one!"

MINNESOTA ENVIRONMENTAL SCIENCES FOUNDATION, INC.,
Minneapolis, Minn., January 31, 1973.

Hon. CASPAR WEINBERGER,
Department of Health, Education, and Welfare,
Washington, D.C.

DEAR MR. SECRETARY: After long and serious deliberation, I regret that I find it necessary to submit to you my resignation from the National Advisory Council for Environmental Education. Reasons for this action are many and the rationale long. However, I will be brief and summarize:

1. Support for the Environmental Education Act (P.L. 91-516) by the HEW/OE has been glaringly weak. Its support for financial assistance to implement the Act has in fact resulted in regressive funding levels. For instance:

FY '71—$5 million authorized, $2 million appropriated, 40.0%.

FY '72—$15 million authorized, $3.514 million appropriated, 23.4%.

FY '73—$25 million authorized, $3.18 million appropriated, 12.7%.

2. Thirteen months after the Act was passed and signed into law, the Advisory Council called for therein, met for the first time. Its membership was poorly chosen—greatly lacking in environmental education expertise. And to this date its fully authorized complement of 21 has never been achieved. Such tardiness and lack of staff support services seriously inhibited the Council in fulfilling its role as described within the Act.

3. The Office of Environmental Education (OEE) has been constantly presented with one obstacle after another to overcome. Such actions have made it extremely difficult for the OEE to advance its mission—that being sound environmental education programs for all citizens, both young and old. For instance:

Five housing moves during OEE's short life span;

Continual lack of full staff complement and three directors during this short period of time.

Critical delays, imposed by secondary and tertiary level administrators in the Office of Education, have caused grant guidelines and applications to be mailed four months late to the public sector.

Such delays have now imposed upon the public sector—especially those with little grantsmanship knowledge and expertise—almost humanly impossible deadlines for grant application submission. Moreover, the OEE is

faced with grant review, appropriate signoff and Congressional notification deadlines that will surely result in impoundment of grant monies. The task is nearly impossible—it will not prove mismanagement by the OEE.

I must hasten to add that the staff of the OEE has fought honestly and earnestly to implement the intent of the Act. It has steadfastly remained loyal to the Office of Education and administration policies in spite of repeated attempts to cause them to be otherwise.

The Advisory Council in spite of such adversities has seriously attempted to perform its role. However, its limited expertise, infrequent meetings, lack of staff support services and little or no support and direction from the Office of Education have rendered it ineffective. The Advisory Council along with the OEE have become the laughing stock of the nation. This is highly disturbing to me because we all are good people with an honest and sincere desire to effectively advance sound environmental education. I feel that I have been used as a pawn in a game of chess by amateurs.

Mr. Secretary, this letter is not intended to be critical of you nor of your predecessor Mr. Richardson. Rather, it is intended to bring to your attention the seriousness of the matter described herein. This letter does not mean that my support and efforts to promulgate the programs of the Office of Education will terminate. Quite the contrary. If my services are needed and channeled effectively, I will devote my time and experience accordingly.

Mr. Secretary, your interests and highly significant contributions to advance environmental education in California are well known. Together we recognize full-well that a citizenry properly educated and informed in environmental interrelationships will also understand and abide by rules and regulations (both legal and self-imposed) aimed at a quality of life. Such a citizenry will rationally examine alternatives to environmental balance rather than be emotionally carried to impractical extremes.

In your new role as Secretary of Health, Education, and Welfare, I request that you seriously examine the forthcoming Annual Report of the Advisory Council for Environmental Education. And then, I ask you to do all in your power to make environmental education an integral components of the programs of the Office of Education.

Respectfully yours,

RICHARD J. MYSHAK.

STATEMENT OF RICHARD J. MYSHAK, EXECUTIVE DIRECTOR, MINNESOTA ENVIRONMENTAL SCIENCES FOUNDATION, INC.

Mr. MYSHAK. Thank you for the opportunity of appearing before you.

I have given a revised copy of my testimony to Mr. Duncan. In consideration of those that follow, I think I will jump over a number of things and get down to the brass tacks of my purpose in being here.

Many statements have been made recently relative to the fact as to whether or not there is a need to continue the Environmental Education Act. Statements have been made that we have made our impact in 3 years of environmental education and now the responsibility should rest with these schools.

In 1971, Governor Wendell Anderson, by executive order, created the 30-member Minnesota Environmental Education Council. The council, among its many tasks, set out to assess the environmental education needs of Minnesotans. This assessment was accomplished as follows:

1. Written surveys were directed to all of Minnesota's public school districts, approximately 100 voluntary organizations throughout the State that are interested in some aspect of environmental education, and all municipalities over 2,500 populations;

2. Six factfinding meetings were conducted at strategic locations throughout the State, at which representatives of educational institutions, voluntary organizations, governmental units, and business and

industry made recommendations regarding needs in their respective areas of interest.

3. Review was made of proposals submitted by various organizations to the U.S. Office of Education for funding environmental education programs as described under Public Law 91-516, section III; and

4. A symposium was conducted on environmental education in postsecondary institutions, and attended by representatives of most of Minnesota's colleges and junior colleges and several vocational technical schools.

From the surveys of school districts it was found that: 83 percent of the school districts reports that development of an environmental education program is needed; but only 2 percent have a formal policy regarding the program; 12 percent have budgeted funds for environmental education; 21 percent have assigned responsibilities for environmental education to a specific person; 21 percent of the districts report that adult citizens have asked that greater emphasis be placed on environmental education; and 30 percent state that students have made similar requests.

The school districts go on to report that: 17 percent have provided environmental education training for their teachers on the local level; while 89 percent say they need area workshops on environmental education for their teachers; 85 percent would like environmental education consultants to come to their schools to conduct inservice training programs; 50 percent of the schools are using environmental education materials obtained from the Department of Education and Department of Natural Resources; 23 percent are using such materials obtained from other public agencies; but 90 percent state that they need more and better curricular materials directed to the local schools' needs.

From Minnesota's voluntary environmental/conservation organizations: 93 percent report that environmental education is a major goal of their organizations; 83 percent have resource people available to work with other groups; but only 41 percent have actually conducted workshops or classes during the last year; 4 percent have received State or Federal grant funds to conduct their programs; 78 percent say they need information about and coordination with other groups to operate effectively; 59 percent would like opportunities for training sessions for their leaders.

From the six regional factfinding meetings: Establishment of resource teams made of local environmental specialists with the direct involvement of local school systems; development of mobile materials and resource units for use by schools and community organizations; more emphasis on adult education, particularly directed toward local decisionmakers; more use of local leaders as resource people; establishment of regional environmental education councils; provisions for communities to develop programs which fit their unique needs; ready availability to each sheool district of an environmental education coordinator; and finally, regional development and implementation is the only method which can really succeed.

Among Minnesota's municipalities, the survey results show that little in the way of environmental education efforts are presently taking place: Only 18 percent report having an environmental advisory commission; 11 percent have sponsored environmental educa-

tion activities; yet, 71 percent believe that they should be promoting and assisting with a variety of environmental activities ranging through pollution control and abatement, recycling, urban planning, and environmental education programs.

Clearly, these major segments of Minnesota's population recognize the need for enhanced environmental education efforts and are expressing interest in helping meet this need. Over 95 percent of the schools have responded to the survey questionnaire, and more than 85 percent of the voluntary organizations and 60 percent of the municipalities have done so. These respondents and people from throughout the State who participated in the six regional fact-finding meetings have left one message that has overshadowed all others—

We're interested in doing the job, but we cannot do it effectively without guidance and coordination that is readily available to us on the local and district levels.

Is this data going to be different anywhere else in these United States? I would venture to say "No!" I don't think that data differs anywhere in the country if comparable surveys were to be conducted.

In response to the surveys we have through the first 3 years reached the public in acquiring the intended goals of the bill, but we have fallen short when the cry is so evident as indicated by the survey that was conducted in Minnesota.

On June 30, 1973, the present Environmental Education Act expires. The chairman of this committee, Congressman John Brademas, introduced on February 7, 1973, H.R. 3927, a bill to extend the Environmental Education Act. The bill includes new levels of funding. I compliment Mr. Brademas once again for assuming the leadership in environmental education—he has become our champion. However, I am also pleased that he has gained additional bipartisan support. On Monday, April 16, 1973, Congressman William Frenzel, Third District, Minnesota has introduced an amendment to Public Law 91-516.

I think some of the types of things that came out in the fact-finding hearing and in the State survey in Minnesota will validate some of the statements that he has brought forth. Basically what Mr. Frenzel's amendment intended to do is one, decentralize the Office of Environmental Education by establishing regional offices of environmental education and advisory councils. We have found the gap between the local level of education and the Federal has been too great. The communication process takes too long.

We suggest that the National Advisory Council on Environmental Education reduce its size and make its chairmanship elective from within the membership of the council, by council members. From representatives from the 10 regions of the Office of Education were seven additional appointees by the Secretary, but let's let the people on the local level or the regional level choose some of their people that they think will be effective.

It places the grant-making responsibility in the regional offices where the needs are more adequately understood and known.

I think we can treat our problems better on a regional level than on a national level. I think we have done an awful lot to try to organize ourselves on a regional level, formally and informally. Informally we are working well, but we need some formal structure to put some teeth in what we need to do.

It also creates a system of accountability from the local level to the national level and from the national to the local level—in both cases through the appropriate State agencies, commissions, or councils and the regional office and its council.

We have found in the past the States do not know what is going on in environmental education relative to the grantmaking process because organizations such as mine are not required to submit a copy of their proposal to the State office of education. We have done so as a matter of courtesy, but the State office does not know who submitted proposals under the terms of the EE Act. They don't know. Just those that come from the local education agency. This is necessary from the standpoint of statewide planning. There needs to be a greater system of effective communication, dissemination, and technical assistance and I think the regional office can help in such a matter.

One of the other things I think is critical in this, Mr. Brademas, is that we do not know yet where we are going. We do not know where we have been. We do not know where our money has been spent.

I think a prerequisite of any future spending under the act should require an assessment of what is happening in education; what have our dollars done to date; what are the needs, what are the trends? I think then Congress or Office of Education can then adequately determine what our dollar is going to go for so that we are not reinventing the well and relighting fires that have already burned out. We need to know where we are going. I think that is only a sound management statement and we should get a dollar for a dollar.

With that, Mr. Chairman, I will close because Mr. Frenzel will speak further on his amendment.

I thank you very much for the opportunity.

Mr. BRADEMAS. Thank you, Mr. Myshak. Would you like to be heard now, Mr. Frenzel?

Mr. FRENZEL. I think it would be appropriate since both of us will probably answer questions.

Mr. BRADEMAS. I will yield to my colleague, a distinguished member of the subcommittee, Mr. Quie, to introduce our next witness.

Mr. QUIE. Thank you. It is a pleasure to introduce Bill Frenzel who has, I think, done an outstanding job while he has been here in Congress. We are all aware of this, but he was a tremendous State legislator beforehand and he has a keen interest in this area of environmental education. Besides he has the good fortune of having Dick Myshak as a constituent, which fact is an asset to anyone.

Mr. BRADEMAS. We are glad to welcome you, Mr. Frenzel and I share the high regard, which Mr. Quie has expressed for your service in Congress and look forward to hearing from you on this legislation.

STATEMENT OF HON. WILLIAM FRENZEL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. FRENZEL. I thank you, Mr. Chairman, and thank you, Congressman Quie.

I have a statement which I have given the subcommittee and I would like to have that stand first in the record.

[The statement referred to follows:]

STATEMENT BY HON. WILLIAM FRENZEL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

The Environmental Education Act of 1973 was a significant step toward the awakening of the American people to the problems of the Environment. The programs it has funded have begun to help people understand ecological issues, and the possible directions they can take to preserve and enhance the environment around them.

As we seek to continue this important legislation, we must first review its impact over the past three years. The need to support environmental education still exists, but I believe that certain changes in the law would increase the probability that our grant moneys produce optimum results.

In the fall of 1970, the Environmental Education Act was passed with overwhelming bipartisan support. The response by the public was extremely encouraging. In the first year, almost 2000 requests were submitted for project funding within three weeks after passage of the bill without any advanced publicity or solicitation. Similar response occured the next two years despite discouragement from the Office of Environmental Education and a great deal of administrative red tape. Only a small percentage of these requests were granted. The enthusiasm for environmental education was stirred up, but because of obvious difficulties, the accomplishments of the program did not match its promise.

1. The most obvious difficulty was insufficient appropriations. It was disappointing that more funds were not made available, but that is not unusual for new programs. Perhaps a better use of available funds would have generated more enthusiasm.

2. The second difficulty was a sort of resistance in the Department of Education to establish the Office of Environmental Education. The physical office was moved five times in ten months, and was set up with a staff that was apparently inadequate to handle the large volume of requests for funds.

3. Third, the Advisory Council was late getting started and does not yet seem to be fully established to work effectively. There was some ambiguity concerning its purpose and powers. Communication between it and the Director of Environmental Education was not perfect. Meetings were not held often enough to produce major accomplishments.

4. Another difficulty was that successes were not shared nor programs coordinated. Projects which could have had a great value for other regions and communities, were not broadcast. Dissemination of materials was one of the major objectives of the act, but one paragraph summaries put out by the OEE were not adequate.

5. Some of the original projects have been discontinued because of their over-reliance on federal funds. Little special effort has apparently been made to start projects which can then be continued with state or local support.

My bill is one attempt to overcome some of these difficulties, by making limited, but important, changes. However, the primary purpose of the act has remained the same: to educate the citizens about environmental quality.

The principal features of my proposal as distinguished from the existing law are these:

1. Purpose and findings changed only to stress local responsibility.
2. Reorganize National Advisory Council.
3. Decentralizes OEE by creation of Regional councils and offices.
4. Allows state input in grants and allocates 90% of grants at regional level. Thereby frees central OEE for coordination, information, and financial assistance.
5. $10 million one year funding to force program re-evaluation. No automatic authorizations unless the program works.

Last year as a result of the original act, 37 states have established groups to study the EE needs of their communities. These are at various stages of development. In a few cases, state funds have been set aside for environmental education in projects which are separate from the federal programs. There has been no effect made to assess these programs and to draw them together with assessments of federal programs or to encourage the remaining states to develop their own programs.

My proposal is intended to make use of both the results of the federal evaluations and the state EE agencies.

One individual from each state would be appointed by the governor to sit on a Regional Advisory Council. In addition, thhe Secretary would appoint 5 members at large to sit on that Council. These regional councils would advise the Regional Education Commissioners, and the regional offices of environmental education in defining the EE needs of that region, developing criteria for regional projects, and assessing those projects. The majority of the proposals will be funded at the regional level. Contracts will not be awarded unless clear evidence is shown that the proposals include the cooperation of at least two of the three major groups involved in this act (elementary and secondary education, higher education, and community education).

Allocation of funds through the regional office would provide sufficient personnel to consider the large number of requests, and thereby avoid all the necessary expenses of transporting readers across the country for a single period of evaluation. It will also enable those on the regional level to coordinate projects, and supply information to groups with similar proposals, so that they have the opportunity to consolidate their efforts. To assure that the states will be involved, the State Environmental Education Council and/or State Education Agency must be notified of and have the opportunity to make recommendations on grants before they are submitted to the regional councils.

Federal assistance to any program may not exceed 90% of the cost the first year, or 75% the second year and 60% in the 3d year. There should be assurance on each project that supplemental funds will continue the program once the Federal funding ceases.

On the National level, the Office of Environmental Education will remain much as it is. However, it is hoped that OEE, relieved of its principal grant evaluation mission it will be better able to coordinate the regional efforts and provide technical assistance. The National Office will also evaluate and award grants for any projects which have overarching national impact. 10% of the funds will be available for this purpose. To assist the director of the OEE, the National Advisory Council will be re-established consisting of one elected member from each of the ten regional councils, and 7 members appointed at large by the Secretary, making the total number 17 rather than the original 22.

The most important duty of the OEE implicit in this proposal is the assessment of the entire program. $10 million is authorized for fiscal 1974, but further authorized for fiscal 1974, but further authorizations should be determined from the conclusions reached from this assessment.

Thus this proposal is intended only to improve the original act. It contemplates a system which will provide means for better communication and coordination. It places the administration of the Act *in the regions* here it can be most effective. The Advisory Councils are set up so that they are representative of the needs of the states. Their duties are defined so that they can have an effective input. I hope monies will be used more effeciently since the one year funding calls for an assessment of the current program, and because of provisions for the continuation of projects so that they will not be wholly dependent on federal funding.

The Environmental Education Act is a most important piece of legislation. This subcommittee deserves enormous credit for that Act. I hope it is continued but I also hope you want to improve it.

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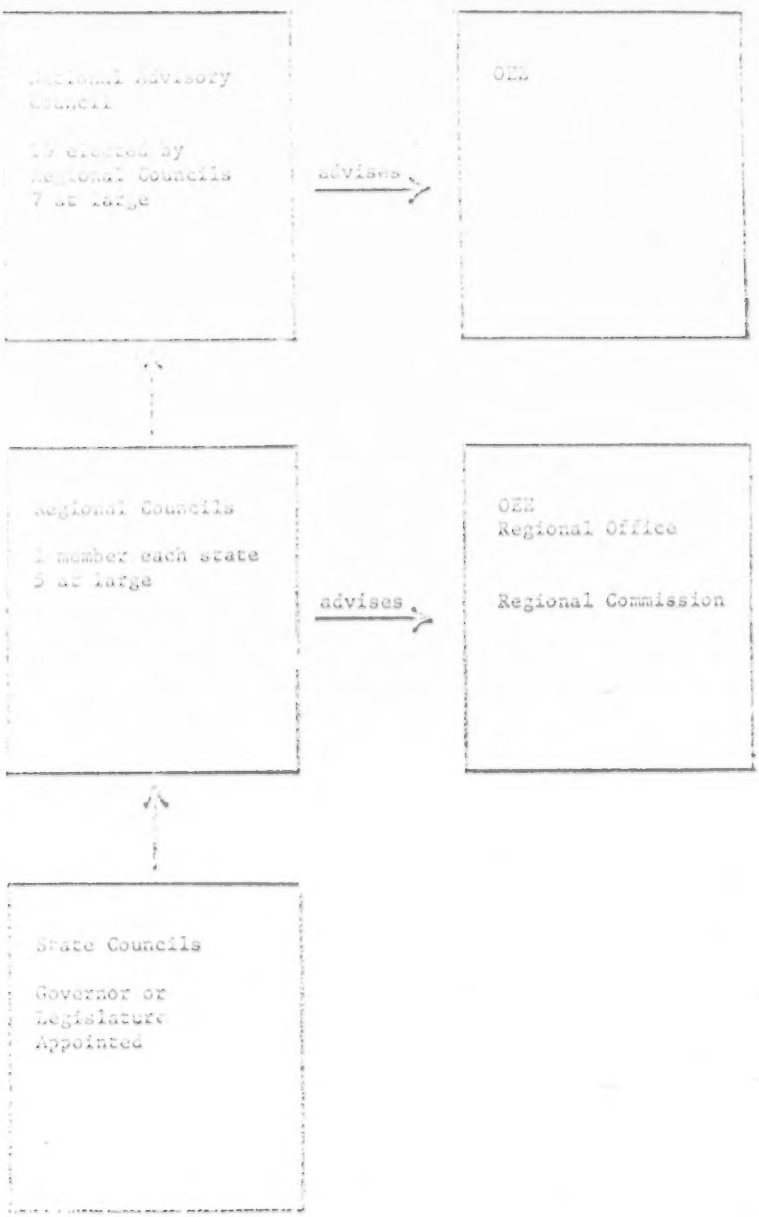

Mr. FRENZEL. I have some amplifying comments I would like to make about the statement. Then I hope that we could shortly get to questions about this particular proposal.

First, I have some trepidation in coming before you people who have been such giants in the field of developing environmental education. As a "Johnny-come-lately," I bring a minimum amount of experience, but a maximum amount of enthusiasm. I realize some of my perceptions may be different than those that the subcommittee have, and if I bring inexperience, I apologize for it and hope that some of the enthusiasm will make up for the obvious deficiencies.

In preparing the bill which I have introduced as an amendment to the Environmental Education Act, I take nothing away from that act. I congratulate this subcommittee and its members individually for what they have done in producing that act, in getting the country started. I think it has been a tremendous stimulation to the States and local agencies that have had to execute the specific programs. But I also think why we are here is to improve the program. I think the act can be improved so that it will make more sense at the local level and be a greater help in actually producing more effective environmental education.

I cannot do anything about appropriations. I realize without them no structure is going to be satisfactory. I think the appropriations level has been disappointing. The necessary spending level has been disappointing and I would submit that at this year's spending level, no program can really be very effective. But I think it is important that the act be kept alive no mattern what the spending level may be.

In my prepared statement I tried to list some things that I think might be improved. It seems to me there are some key elemenws. The first is that the Advisory Council probably has not functioned the way it might have been intended to function. The Office of Environmental Education is overrun by grant applications. Really it does not have a good basis for evaluation of those grants. It calls in outsiders to look them over. These outsiders may, or may not, be qualified to determine whether the grants have viability and to comment as to the regional character of those particular grants. I think that is a demonstrated weakness of the program.

The program does not have enough local thrust. There is not enough incentive at the local level to do what I think is the business of environmental education. Therefore, the amendments which I proposed to the act would try to establish regional and environmental councils which would have a core of members appointed from the State by the Governors, and please remember Mr. Chairman, that I have a Democratic Governor so I am being very big hearted in this proposal.

Mr. BRADEMAS. I regret to say I do not.

Mr. FRENZEL. These councils would assist an OEE Commission in each of the 10 regions. Under my proposal the States would have the first look at local grants. I think it is important to note that that does not happen under the current law. The grants simply come flying directly down to Washington. Some of them have to be reviewed by the State but some don't. Under my proposal all of them would be reviewed by the State. That is the first sieve.

Secondly, they would have regional review composed of people in the region who know the region's environmental needs and peculiarities. These people would be involved in the region's environmental problems. These councils would make the basic determination for 90 percent of the grant moneys that would actually be approved under this program. Then from the regional councils would again be selected the core for the National Advisory Council. I have no quarrel with the composition of the National Advisory Council now, but I would submit that it does not represent what a lot of us think are the constructive needs of the new federalism concept.

Under my proposal the members or at least 10 of the members of the National Advisory Council would come from the regional areas and therefore they would represent local thinking. The regional council memberships, at least half of them would come from the States—and they also would represent local people. It seems to me my proposal is trying to take you a small step down the road to the new federalism, or to local control over the programs, and at the same time, to retain a little Federal control so we will be able to provide proper incentives.

Mr. Chairman, all I am trying to do is simply to improve the program by putting the States and regions more actively into the program, and giving them a chance to make some of their own determinations. However, I would defer to the judgments of the subcommittee and say that whatever you do in this field I am certain will be a good piece of work. I would like to be helpful to the subcommittee as it moves ahead in developing the legislation.

Mr. BRADEMAS. Thank you very much, Mr. Frenzel, for a most helpful statement and I thank you, again, Mr. Myshak.

What I might do is put some questions to each of you and I hope that either of you will feel free to comment after the other has spoken.

Mr. Myshak, in your opening statement you quoted President Nixon's celebrated statement urging the development—to quote the President—of "teaching of environmental concepts at every point in the educational process." Then you go on to also quote Mr. Marland in his statement that "environmental education is education that cannot wait." Given that kind of rhetoric, and given Secretary Richardson's caveat against overpromising, which is a frequent homily of the Secretary, why does the administration, in your judgment, prove so hostile to the legislation?

Mr. MYSHAK. I guess I would not be able to answer that question, Mr. Chairman. However, I might point out that those of us that are actively involved in environmental education have seen one roadblock after another thrust before us: lack of support, delays, changes in the game plan almost in the middle of the game and things like this. It is frustrating and difficult to comprehend and understand. The rationale and reasoning behind it is very difficult to perceive, especially when we find we are dealing with the greatest natural resource on this earth. It is not coal, fuel, forests—it is the minds of our young people we are talking about, and this is very difficult to comprehend on the part of us actively involved in environmental education.

Mr. BRADEMAS. It is extraordinary that we are now talking about an energy crisis in the United States. One of the problems we have is educating people about the dimensions of fuel supply, and other sources of energy. I confess I am no expert on that subject nor do I recall in school days ever getting much of an education in that field.

I would have to say both to you, Mr. Myshak, and to my colleague, Mr. Frenzel, that while I certainly, as chairman of the subcommittee, will be most openminded on the suggestions you have made for strengthening the act, my own view is that it is not so much a question of the structure of the statute as it is a lack of will on the part of the administration to give support to the statute.

I think we have written a tolerably good law. We don't get complaints from people in the field. But it seems to me we have another instance of legislation that has won wide support on both sides of the aisle, as Mr. Frenzel has indicated, that has produced a wide variety of interesting applications across the United States, but that—for reasons of the narrow categorical ideological presuppositions of the administration—is opposed by the executive branch.

Now I understand Mr. Frenzel, you are saying you hope that you will take us a step down the road of the New Federalism. I was not sure, if in saying that, you wanted us to support your bill or not. Because I think the New Federalism is not worth the power to blow it up, and I am even less enthusiastic about all this New Federalism rhetoric every passing day as I read the newspapers.

Mr. FRENZEL. Mr. Chairman, I would agree that this rhetoric does not thrill me either. I am interested in performance and not rhetoric. But I have seen central government performance over the years and I have some awareness of how the grant situation is now handled in the Office of Environmental Education. And that to me represents some of the problems that you get with centralism.

Mr. BRADEMAS. Just a minute. You are not surely suggesting that it is centralism that is the cause of the difficulties we have had with this program?

Mr. FRENZEL. I will say the primary cause is you do not have enough money. With that stipulation, I don't want to get into a philosophical discussion. But if $10 million as I proposed is available, I suggest it would be spent more effectively with local inputs than if all the grants for that particular size bag of money were still to be reviewed at the national level as they are now.

Mr. BRADEMAS. What kind of people do you contemplate would sit on these regional review boards?

Mr. FRENZEL. The Governors would appoint one from each State. In my region there are six States and I presume the Governor would appoint some person, who was a person of experience and preeminence in the field of environmental education. It could be a person like Mr. Myshak or like any other of the dozens in my State who are involved in this and know something about it.

There would be six members of that local group. Then as I recall I think I provide—if you look at the last page of my testimony there is a little picture—five members at large appointed by the Secretary. Now depending on the size of the region—and there are 10 so I presume the average size is 5—in some areas the State appointees would outnumber the Federal appointees and in some areas it would be the other way around. However, the Secretary would appoint what I guess would be his own business, but it would be stipulated that they would come from the region. But I hope the State people would be the ones who were important in the States' environmental program, and perhaps had developed the States' environmental program, and perhaps had developed the States' environmental plan.

Mr. BRADEMAS. Is there some reason, historically, for you to come to the judgment that States have a commitment to support environmental education?

Mr. FRENZEL. Not at all except the States happen to be there.

Mr. BRADEMAS. So are we.

Mr. FRENZEL. And they happen to be in control of, or rather more closely associated with, the elements that are finally going to deliver environmental education. They are the elementary and secondary school system, the post-high school system, and the local units, the communities who will also be involved.

Mr. BRADEMAS. There has been such weak leadership on the part of the State governments generally—with a couple of exceptions such as your State, New Jersey, and California—with regard to environmental education. When Mr. Weinberger was more constructively engaged in public service he was also a leader in this area. Why is it that you want to give a vote of confidence to the States, to involve them in operating these programs when, on the obvious evidence, the States have shown no particular interest in environmental education up to this point?

Mr. FRENZEL. Perhaps I am basing it more on my local experience. When the States were given incentives, as they were under the act you produced, the States, at least in our central region, seemed to jump at the chance and do a good job. Now, I would like to give them more initiative and let them expand that initiative because I think they will do better than we will on the local review.

Mr. BRADEMAS. Are you requiring, in that respect, that the States put up some of their own money?

Mr. FRENZEL. The grant under my proposal is a percentage one, so obviously there is some local money required. There is a further requirement which I did not discuss yet. I don't believe it is in the law now. It requires that one of the criteria for a grant is that there be some local funds to go beyond the period of the Federal grants to keep the program going if it works.

Mr. BRADEMAS. How much State-matching would you propose?

Mr. QUIE. I would propose 10, 25, and 40.

Mr. FRENZEL. Those figures are in excess of current ratios.

Mr. BRADEMAS. I note Mr. Myshak that you also call for a national assessment of the needs in environmental education. You understand I am trying to put some provocative questions to you to elicit some information, but do we really need a national assessment.

I don't know what that would cost, but is it not already clear, on the evidence that has been brought before this subcommittee, and on the basis of evidence that has been sent to the Office of Environmental Education, that we know there are needs in this field, and that we ought, therefore, to try to meet those needs. I am not persuaded that an investment of the amount of money it would require to assess needs and trends across the country would be the wisest way to spend dollars here. What do you say to that?

Mr. MYSHAK. I think, Mr. Chairman, there could be an assessment conducted for whatever modest the funds. I think a number of States have to some degree or other conduct either formal or informal types of surveys to determine what is going on, what are some of the recognized needs? Ours, of course, in Minnesota is some were more sophisti-

cated. It gets right down to brass tacks. I think my statement relative to assessment is for this purpose. If the grantsmanship role continues to rest with the Federal Government, I wonder on what basis are they determining whether we invest our money in curriculum development, teacher training, development of ecological study centers or what. I think we need to take a look at where are the needs they have requested and then perhaps priorities that list as to where the dollars go. I think if a proposal looks good you give it money.

Mr. BRADEMAS. Wait. Let's examine what you just said with some care. You have said you think we need to take a look at it. Who is the we?

Mr. MYSHAK. Whoever conducts this assessment and they should submit this report to the Office of Education.

Mr. BRADEMAS. Who is that?

Mr. MYSHAK. I think there are a number of recognized institutions around the country that could do this. Ohio State University which provided leadership within the Office of Education. There are a number of outstanding universities around the country. Research Associates University of Green Bay—or go to some of the research centers in California. I think some of these could adequately conduct such a survey.

Mr. BRADEMAS. I thought we had, in fact, on this subcommittee done something along that line. In our recommendations in the committee report, when we wrote this legislation into law, we indicated certain priorities that we felt were justified.

The fact is the administration ignored these recommendations of Congress. I have heard no evidence to tell us that these judgments, based on the most systematic public effort to elicit ideas on environmental education, were somehow wrong. Nobody has told us that we were mistaken in urging that attention be given to curriculum development and teacher training.

I guess my own judgment about the Environmental Education Act as we now sit here is not that it has been tried and has been found wanting. My judgment is that the administration has from the outset sought to strangle and cripple the program.

You remember how when Sid Marland was in here I said, "You are an administration of lawbreakers. Congress mandated that you establish an Office of Environmental Education, and you waited a year to do so." They broke the law and expressed their contempt of Congress in failing to appoint the Advisory Council of which you were a member for many months.

And then you remember the charade they made of the appointment of a Director of the Office of Environmental Education.

It has just been disgraceful in my opinion. I, therefore, am frank to say, that if they would just obey the law of the land, and give good faith support to the clearly expressed intent of the overwhelming majority of Republicans and Democrats in Congress, you may be surprised, the law may work.

And given the modest amount of money, and all of the shenanigans in the Office of Education in connection with this legislation, it has been fairly encouraging to me to see that some constructive results have been attained.

So I guess my own feeling, Mr. Frenzel, is—and again I will examine your recommendations with the most open mind—is that we should just try the present law out honestly and see that that works. Then if we have problems maybe we ought to take a look at some serious amendments.

I would ask unanimous consent that there be inserted in the record the text of the correspondence between myself and the Secretary of Health, Education, and Welfare, Mr. Weinberger, as well as the letters Mr. Myshak appended to his statement, along with a letter from the Governor of Minnesota.

[Letter from the Governor of Minnesota follows:]

STATE OF MINNESOTA,
OFFICE OF THE GOVERNOR,
Saint Paul, April 18, 1973.

Hon. CASPAR WEINBERGER,
Secretary, Department of Health, Education, and Welfare,
Washington, D.C.

DEAR MR. SECRETARY: I am writing to convey my concern and deep disappointment about the administration of the Environmental Education Act of 1970 (PL 91-516) by your office and the Office of Education.

Several events have occurred which can only be interpreted as deliberate efforts to emasculate the program and subvert the letter and intent of the law.

First, there was an unexplainable and unnecessary delay in issuing guidelines and applications for the current year, coupled with an unreasonable deadline once the materials were provided. This resulted in extreme hardship on many applicants and prevented many potential applicants from even submitting proposals.

I registered a protest regarding this situation with Mr. John Ottina on February 8th and requested that corrective action be taken and the deadline extended. Mr. Ottina did not acknowledge my letter until March 9th and failed to either explain or modify the unreasonable actions of his office.

In spite of this situation, over one thousand proposals for federal support were submitted, evaluated and rated, which speaks highly for the efforts of Mr. Walter Bogan and his staff in the Office of Environmental Education.

The latest event, and the one which I resent and protest most strongly, is that I have been advised that on March 29, 1973, by directive of your office, the level of funding for programs under PL 91-516 has been reduced to approximately one-third of the $3.18 million originally announced. As recently as March 2, 1973, Mr. Walter Bogan, Director of the Office of Environmental Education, in a paper presented to the Conservation Foundation Forum, confirmed that the $3.18 million would be available for grants. The Office of Education in various public documents and statements, also confirmed that figure.

Your action of withholding two-thirds of the promised support funds for environmental education, coupled with the elimination or proposed elimination of scores of other bipartisan educational support programs does nothing less than to leave the various state and local education agencies in confusion and financial dispair.

I request that you reconsider this action by your office and restore to the Office of Environmental Education the full $3.18 million originally announced. Certainly, we have not forgotten the great leadership you provided in your home state of California by advancing environmental education. You saw then the critical need to counteract the environmental inbalance that exists. Similar action by you now will significantly advance our joint efforts to restore environmental equilibrium.

Sincerely,

WENDELL R. ANDERSON.

Mr. FRENZEL. May I respond briefly? I do want to point out that in my proposal, Mr. Chairman, I have not altered the findings and purpose, nor the litany of the purposes in what you are trying to fund. I did not mean to imply anything else. I think those purposes are good ones. I think when we are talking about review, Mr. Myshak and I were

trying to decide which of the grants are aimed at which of those programs. Do we have any consistent pattern? I think it is our feeling that we probably don't have a planned pattern, that we are just approving nice grants and not checking to see whether we have 3 of those, or 1 of these, or 100 of the other. We have not tried to change the purposes of your act.

Mr. BRADEMAS. I appreciate that observation. Mr. Myshak?

Mr. MYSHAK. I recognize that the original assessment for what was necessary to be included in this act still stands. I am not quibbling with that. They are all strong points that are needed to be funded. You yourself have questioned what has happened to curriculum development. What I am trying to say from this standpoint of assessment—let's look at the most critical needs and get at those first and then let's come down the line. So let's arrange those criteria established in the original act and get at those. And I think we are not doing that. I think we are just across the board.

Mr. BRADEMAS. That is because they are not doing what we told them to do.

Mr. MYSHAK. I think they need guidance from you.

Mr. BRADEMAS. It is not because there is a central pattern of decision-making as distinguished from local authority. It is because they read the law and then they violate it. So I have not been surprised by anything that has happened. I have seen this pattern develop in this subcommittee for several years.

Mr. QUIE. First, I want to make a comment which will not surprise either Mr. Myshak or Bill Frenzel because I have told both privately but I will say it for the record. I don't think much of regional offices. I said many times before if I had my way I would abolish all 10 of them for all the departments. I know States have been found wanting, but I would sooner see some of the administrative responsibility shifted to the States rather than operate through regional offices. Regional offices are not answerable to anyone. They have no sensitivity to the peculiar needs of the State. They were set up that way hopefully to make them closer to the States, but they just aren't. I think that is the problem with the American system. When you are in one State you do not have the sensitivity to feel for a neighboring State. I have that problem with your legislation which mandates a strengthening of the regional office, when I would like to see it go the other way.

I also question whether we could accept the Governors appointing the regional council or majority of the regional council and these people in effect appointing the ones on the national council because it gives the Governors responsibility over national administration. I would like to see it get into the States. Of course, the Governor can appoint the State council. That is my speech on the regional office. On an assessment I appreciate your suggestion here. I would be interested in finding out what is actually being done in the education system. I was surprised at the number of environmental education programs funded with title III of ESEA. I know some of them got started that way and some of them continued in operation after 3 years or over for the program. Do you have at your disposal anything about what Minnesota is doing? Do you know a place you could go and find out what is being done in environmental education with title III money in ESEA in all the States of the Union?

Mr. MYSHAK. I don't know if we could do it by various Federal funded programs but you know we can go to our State council on environmental education. We have in the council identified all environmental education programs that are going on in the State.

Mr. QUIE. I see John Brademas handed me a booklet "National Advisory Council, Supplementary Service on Title 3" which has some samples of it. Does this have everything involved in it? Probably you could look at this and see if all of Minnesota's projects are in there or not.

Let me ask you also, in your recommendation, how do you think money could best be spent in environmental education? You talk about teacher training centers. For instance, in Red Wing, I guess there is no Federal money involved in any program but they have a center there which has done an amazing job for people in the community and especially the schoolchildren that would not show up in any statistics. Which way do you think the money should be spent?

Mr. MYSHAK. I feel still we need some sort of an assessment. We receive out of the Office of Education information about what is going on around the country. They come in three and four line descriptions. We need better communication. We need better dissemination of what is going on around the country, what is going on within our regions. I think there is still a tremendous amount of work needed in the area of curriculum development. I don't think the job is done. I think there are a number of groups and agencies that have solved them in curriculum development but these groups have to come together and pull together and make that readily aavilable. I think both on a Federal and on a State level there is a tremendous wealth of technical assistance that is really lying there fallow. I see one individual in the audience, June Westenberger from U.S. Forest Service whose responsibility is in environmental education. I would venture to guess that Miss Westenberger's services have not really been capitalized on by the U.S. Office of Education.

The Bureau of Sport Fisheries and Wildlife, National Park Service, Corp of Engineers, BLM, go right down the line. A number of those groups are doing a lot of work in environmental education but nobody has pulled us together or disseminated this information to those of us in the field.

Teacher training is still a big void in what is necessary to advance sound understanding of environmental relationships.

Mr. QUIE. What about EPA themselves? What is the possibility of that organization pulling that information together, can they bring other agencies of the Federal Government together, utilizing their resources?

Mr. MYSHAK. I know EPA has consistently expressed a strong interest and concern, and even to a degree, leadership in environmental education. I guess I would only pose one word of caution and it could be in the form of a question. Should a regulatory agency also be responsible for the education related to that that it regulates? That is the only caution I would pose. Otherwise, I think they have been dedicated.

Mr. QUIE. They are limited——

Mr. MYSHAK. I know there is training associated.

Mr. QUIE. They do have programs of that nature.

Mr. FRENZEL. Mr. Chairman, may I respond. It seems to me the EPA does a good job doing what it does. It is probably one of the few Government agencies that most of us would agree is doing a pretty good job. All we have to do to have it do a lousy job is give it a lot more duties like operate an education system which I think they are not well suited to do. It does seems to me the act that created the agency is limited and I suspect they would have difficulty without a change in law to do what you are suggesting other than to act as a resource and could operate.

Mr. QUIE. What if the Federal money is not forthcoming? Do you think the States will continue what they are presently doing themselves, and secondly, do you think the interests would continue to where they would do any expansion of what they are doing?

Mr. FRENZEL. As I stated in my introductory remarks, I did not make but they are in the presentation that I submitted. I think the educational world is consistently responding to national needs and I think that there are enough of us that are still around that would see that the States would do something, local education agencies would do something, the organization and what have you. I think we would continue. It will be a rough row to hoe. We are delaying the timetable that is necessary to come to grips with what is happening in our environment. We cannot waste that much more time. I think the leadership still rests with the Federal Government.

Mr. QUIE. A week and one-half ago I visited Apple Valley Junior High School which is a school without walls. The classes are out in the open, the students move from one class to another without going through a door. What struck me was the number of environmental programs that were going on in various disciplines within that school. Evidently in that school somebody must have a keen interest. It was going on in the science department, in English and the social studies, all the same time in various parts of the room.

Mr. FRENZEL. There are many in my district that have those kinds of programs that work well, but there are many that don't. Those that don't are going to have difficulty learning about the programs that do work and how to put them into execution without Federal leadership, in my judgment.

Mr. BRADEMAS. Mr. Myshak, let me ask you two other questions.

One, you called for a nationwide assessment of the needs and resources in environmental education, a subject which we discussed a moment ago. To what extent are the States themselves, on their own initiative and with their own resources, undertaking statewide assessments in that respect?

Mr. MYSHAK. Minnesota has completed it. Wisconsin is in the process of doing so. Illinois is. Your own State has just become very actively involved in trying to determine what is going on. Michigan has. I can only refer primarily, Mr. Chairman, to the Great Lakes States. Ohio, I have no knowledge, because we have not heard much.

Mr. BRADEMAS. I hope I understood you correctly, in your response to Mr. Quie, when you suggested that if we did not provide more Federal money for environmental education the States would take up the slack. I don't know if that is what you meant to suggest or not. I am very dubious about that quite frankly. I hope you are right, but State politicians love to spend federally appropriated funds, but

rarely do they like to provide State funds. Minnesota is different from Indiana.

Mr. MYSHAK. You, at the conservation forum said you will not roll over and play dead on this issue. I think enough of us have been excited enough that we are not going to roll over dead either. If we have to go to the States to fight for it we will.

Mr. BRADEMAS. I am delighted to hear that.

My final question has to do with the foundation that you head, the Minnesota Environmental Sciences Foundation, Inc. Where do you get your money; Federal, State, local, private?

Mr. MYSHAK. The bulk of our share of funding has come from the Federal Government. More recently, though, we have really expanded our area of fund raising, contributions, contractor service and what have you. My testimony indicates something in the area of $350,000 have been generated from private funds. That is an error. It is $435,000 generated from public and from private funds, from white elephant sales in high schools, elementary schools, to substantial contributions on the part of individuals and contract service. We are selling our services. We sell our materials. We are trying to become self-sustaining.

Mr. BRADEMAS. What Federal statute is the major source of that Federal money?

Mr. MYSHAK. As you know we have been funding by title 3 initially. It expired 3 years ago. The bulk of our funding came from there. We are one of the few projects that managed to continue after the expiration of title 3.

Mr. BRADEMAS. Did you get State money?

Mr. MYSHAK. Yes. We have written the pilot materials in the area of elementary environmental education. Those are undergoing revision. We received a large grant from the Rush Foundation to continue and develop secondary materials and a teacher's grid for elementary education. We are requiring another matching grant there, $75,000 for $75,000. We are going out to get the money and we will get it and we will be operational July 1, developing those materials for the State.

Mr. BRADEMAS. Thank you Mr. Myshak and Mr. Frenzel. Your testimony has been most helpful. Your suggestions have been most thoughtful and the subcommittee will give them very careful attention.

Next we will hear from a panel which will include Mr. Thomas W. Offutt, vice president of the Institute for Environmental Education of Cleveland, Ohio, accompanied by Mr. John Fender, Mr. James Henry, and by three students, Melinda Merryfield, Valaire Raines, and Doug Smith. Won't you come up and sit down. We are pleased to have you with us.

Mr. Offutt, why don't you go ahead, sir.

STATEMENT OF THOMAS W. OFFUTT, VICE PRESIDENT, INSTITUTE ON ENVIRONMENTAL STUDIES, CLEVELAND, OHIO, ACCOMPANIED BY JOHN FENEER, PRINCIPAL, DAVEY JUNIOR HIGH SCHOOL, KENT, OHIO; JAMES HENRY, TEACHER, DAVEY JUNIOR HIGH SCHOOL; MELINDA MERRYFIELD, SENIOR, CARDINAL HIGH SCHOOL, MIDDLEFIELD, OHIO; VALAIRE RAINES, STUDENT, KIRK JUNIOR HIGH SCHOOL; AND DOUG SMITH, STUDENT, DAVEY JUNIOR HIGH SCHOOL, KENT, OHIO

Mr. OFFUTT. I would like to ask Valaire and Melinda to read the statements they have prepared and hope that the others get here.

Miss MERRYFIELD. My name is Melinda Merryfield, a junior in Cardinal High School. I have lived all my life in Middlefield, Ohio. Middlefield is a small Amish farming community, 40 miles east of Cleveland. Living in a small community, one sometimes becomes isolated from the rest of the world. This past summer I was chosen to participate in a teacher/student training program, conducted by the Institute for Environmental Education with Federal funds. Prior to this, I felt that we didn't really have any pollution problems in Middlefield. Perhaps I just see what I was looking for. The program made me use all my senses to become aware of community problems. I was most interested in water pollution. I learned to test the water, to retest and evaluate. For once the chemistry and biology I had taken fitted together. I even needed physics and bacteriology to understand what was going on.

It was good to exchange views with kids that lived in other communities but one student, in all seriousness, said, "Move the factories out of the city and into the country." I could now see the danger of the megalopolis and how what happened in Cleveland affected my life in Middlefield.

Many factories have moved to Middlefield. It is cheaper to move than to install pollution control devices.

We had a chance to meet and talk with concerned officials and found the limitations under which they were working, and talk with concerned officials, such as Harry Pritchard, U.S. Army Corps of Engineers. We attended public hearings and found that we understood what was going on.

I became aware of what is happening in the world and by then I could see better what is happening in my own community. People are busy. They are uninformed. They see only what they want to see. Pollution in Middlefield, and other communities like it, occurs slowly and is not noticed by the average citizen. Pollution problems could be nipped in the bud now if people were aware of them.

I have investigated a small stream, No Name Creek, that flows through Middlefield. It is small but has the same problems as the Cuyahoga on a smaller scale. If students everywhere cared about small streams in their community, soon we wouldn't have a dying Lake Erie, or Mississippi, or Hudson to worry about.

When people are concerned and don't have facts and understanding they can cause more problems than they solve. Through programs such as these offered by the Institute for Environmental Education, schools everywhere can get started taking responsible action to improve their environment.

Mr. BRADEMAS. Thank you very much, Miss Merryfield, for a very thoughtful statement.

Miss Raines?

Miss RAINES. My name is Val Raines. I'm a 7th grade student at Kirk Junior High School in East Cleveland. It's a nice place to live. East Cleveland is very different from Melinda's home—a lot of people live close together—when they work together the community improves.

There are lots of things going on in the world that people care about, but they should first care about their own neighborhood. Knowing about neighborhood problems and how to solve them is more important to me than a lot of facts. Most of the kids that I know feel the same way.

In class this year, we have picked topics that are important to us—we find as much information on them as we can, we talk to people in the community—we read, we test, we put it all together and have started to find ways to help. This year we have gotten to understand neighborhood problems. Maybe next year we can start to do something about them.

The kinds of things that we have been doing are like studying rats—it was OK, but our class is just before lunch. We learned why there are rats and what the city is doing to control them. If people took better care of where they lived—if they cared—there wouldn't be as much of a problem.

Mr. Wolf, our teacher, needs money to get us around, money for equipment, money for training programs. You can't do anything without money.

This kind of education makes you feel you have to go out and do something; it makes you feel bad when you see people not doing anything; it lets you know what to watch out for; and it makes you realize that where you live is important.

Mr. BRADEMAS. Thank you, Miss Raines, for a very interesting statement.

Mr. Offutt?

Mr. OFFUTT. I feel it is important to have the statements of students that are benefiting from Public Law 91-516 funds. Valaire and Melinda are only 2 out of about 1,300 that we have been working with in Cleveland. My statement reads:

The Institute for Environmental Education is a national, nonprofit organization to support environmental education in secondary schools. We operate with funds from the user schools, from foundations, from EPA and from the U.S. Office of Environmental Education. We grew out of summer teacher-training programs begun in 1967 with students and teachers involved in investigations of their environment. A description of these programs, by Mr. Edward Ames of the Foundation, reads:

> A high priority is placed on the processes of inquiry and problem solving but the focus is outward into the community and on actual problems affecting the lives of students.

In recent years we have seen the beginnings of something new in the schools. The words of these students, and the others in our Cuyahoga heritage project, best define what that something is—"All of this makes you realize that where you live is important." "We look at all that we have done and know that we did it ourselves." "I don't want

to go back to looking out the windows of our school, wondering what's out there." "Even little problems are complicated. You end up needing to know something about everything." And then a teacher, "You know, maybe there is some hope for the system." You have to experience this to believe what is happening.

Environmental education is powerful business and it doesn't just happen. Teachers need evidence that this approach works. They need the kind of experience that comes from training programs; they need examples of how it has worked in situations similar to their own; they need special resources, skills, the extra time and help to do more. PL 91–516 funds have bought this.

In our experience environmental education has worked in all schools where the school administration has given it a chance. We serve 12 school systems now—at least that many more have asked to join Cuyahoga Heritage. The national needs for environmental education support programs have been stated clearly by teachers and students from the 107 schools in 11 States where we have conducted workshops so far this year.

Of equal importance to training workshops are the environmental education activity examples such as the curriculum activities guide to water pollution and environmental studies. This document gives the teacher examples of how to investigate water pollution problems. It was written by students and teachers from the 1970 to 71 program and is now published by the Government Printing Office. This collection of experiences is called by EPA administrator, William Ruckelshaus, "By far the most complete and accurate of the few environmental curricula in use." We have similar curriculum activities in final development stage. These new materials will disseminate student experiences in investigations relating to the environmental problems of urban, suburban and rural communities.

A 14-State consortium of ongoing teacher support agencies, such as ourselves, has just been formed, coordinating, communicating and dissemination of funds are needed. Training, curriculum and delivery system, a record of success, it's all there.

The dollars are small when compared to the size of the stakes.

Thank you very much, Congressman.

Mr. BRADEMAS. Thank you, Mr. Offutt.

Mr. Doug Smith?

Mr. SMITH. Good morning. Being involved in the Cuyahoga heritage program for environmental education has meant a lot to us. Our whole class has done some tremendous things this year. We have broken through scheduling problems, been able to get out in the community, investigate problems, and be back to school without disturbing the rest of the classes. We have also expanded the program down to 6th grade classes. The program has been very helpful and very interesting to me and the rest of my classmates. They have specially liked their work in the last part of the year. The work in the last part of the year was at individual projects. This was most interesting because we got to pick the problem we were interested in and then design a small research program to understand the problem. My classmates and I really enjoyed this. Another good thing is that we have gotten to work on real community problems, on an equal basis with our teacher, Mr. Henry. When there is a problem on what we are

working on and they go ask Mr. Henry, often he doesn't know the answer and so he asked the class what it is. This is good, having a teacher and a student working on a problem together.

Speaking for myself and all of these students, may we urge you to expend and expand the Environmental Education Act of 1970 to keep these excellent environmental education programs going. It is my feeling that environmental education is the biggest upcoming program today and is the most worthwhile.

Mr. BRADEMAS. Thank you very much, Doug.

That is a very good statement.

Mr. Fender, are you next, sir, or is Mr. Henry next?

Mr. HENRY. I would like to thank you for the opportunity of being before you and speaking to this issue. After having spent 16 years as a teacher, I have come to realize there are a lot of criticisms directed to American education, far more criticisms than solutions. I think many of the criticisms are valid and I have been for the last several years conscious, compelled to look for better methods of getting my subject matter across to pupils. I think in the beginning stages of your teaching education, you are so engulfed with subject matter that is all that seems to matter, but after awhile you realize there is this methodology that is necessary to get the material from the teacher to the student and in spite of the criticism, I found the answers are just not there. I feel I was very fortunate in getting involved with IEE. I did this because I was looking for new and better ways. Through IEE, we are involved with what we call the fishing creek watershed project which allows us to get kids out of the classroom into the community, exposed to community center problems. What we are doing, I think, is very worthwhile and very realistic. The students begin to realize the questions do not arise in the first part of the period and the answers come in the second part of the period. Much of this has been possible through the Federal funding and the support that IEE has received and has given us. I feel good about what we are doing, because for the first time in several years my conscience is at rest because I realize we are moving in a proper direction. Again, the criticisms are being made and the solutions are not there. I realize if any solutions are to come forth, it is going to have to be by the teachers in the classroom who are willing to take these kinds of steps necessary to try new things. I would not consider myself an extremist.

I believe we should hold fast to the old ways that are proven worthwhile but I think we should be allowed an educational venture. That will allow us to explore new and better ways of trying to prescribe curriculums. IEE, I think, is doing this for us. I guess what it boils down to—I think as a teacher with 16 years of experience, I am involved with something very worthwhile. Having talked to other teachers who are somewhat involved with this or who would like to be involved with this, or who are totally confused and just looking for some meaningful direction to take, I would like to encourage you to expand and extend your support through the Environmental Education Act of 1970 to the program that IEE is running and those like it. I guess I am raising this, in part, as a selfish plea because I enjoy what I am doing. I feel it is meaningful and worthwhile, and as I said, this puts my conscience a little more at rest.

I think it goes without saying that one of the finest investments that we can make in our country is in the education of our youth, that

which has been called America's most valuable resource, and that sums up my plea.

Mr. BRADEMAS. Mr. Fender?

Mr. FENDER. I am administrator of the building which Jim and Doug are in. I found out this is really a good vehicle.

One of the things we are concerned about in education now is how can we turn kids on. And really one of the ways we have done this is a hand-on approach in which the kids have gotten away from textbooks and have gotten out in the field. Our community has felt good about it. It has brought together a kind of togetherness. We have had a chance to see community people, adults coming together with children. We have had a chance also to use a lot of community people as resource people. The community has had a chance also to see where Federal money is going and they like it. We have had some people ask, "Where is the Federal money going in education?" They have had a chance to see this and they like it. I think also, with this money we have had a chance to become innovative and to meet these needs of kids. We have only had the program 1 year, but we see a lot of plus-positive things about it.

I would urge the subcommittee—I would recommend they continue the program. My concern is what is best for children, and I see this particular instrument as being very good. It is one vehicle by which we can really teach kids about environment and this is a lot of spinoff too.

Mr. BRADEMAS. Thank you, Mr. Fender. I thank all of you for very interesting and constructive statements.

Let me ask each of you a question or two in light of what you have just said.

Doug, you said that you were involved, in your class, in selecting individual projects in environmental education. Can you tell me what are some of the kinds of projects that you found particularly interesting?

Mr. SMITH. I, myself, am working on a study of dissolved oxygen in water and how it relates to biological factors relating to the animals, and so forth, in the stream. Some of the kids have gotten into history-type problems, finding out the backgrounds of the watershed we are in because that is tied in, but they are interested in that type of thing. So it is all together in the same boat and it is very good. Some people are working on septic systems in one of the nearby lake communities. That is a sampling of what has been going on.

Mr. BRADEMAS. You just used a very interesting phrase, "It is all together in the same boat." That is very revealing to me, of course, because that is clearly the concept that we have in mind when we use the word "ecology." And that concept must be getting through to you and your classmates—the idea, as my Greek immigrant father likes to say, that "one hand washes the other and both hands wash the face." Everything is related to everything else.

Valaire and Melinda, let me ask the two of you to give a comment on how you find your classmates reacting to the whole idea of environmental education? Do you find an increasing interest, do you find that the interest is confined to a very small number of students, or do you feel the interest is growing? What would you say?

Miss RAINES. I think they feel the same way I do. Like some people will be in a hurry to finish one report so they can start another one

so they can learn about different things. It makes you more interested in things.

Miss MERRYFIELD. I find it has grown immensely. When I did my report on no name stream. I did it with an objective of coming up with some solutions because it is very polluted. I gave this report to my independent study class and everybody was very enthused about it. Our ecology club is taking it to the village council. We made some suggestions and we are trying to get them to pass them. The village council has been made more aware of the pollution problems and I think it has made the community more aware.

Mr. BRADEMAS. That is very interesting because one of the kinds of programs that the Environmental Education Act is meant to support, in addition to supporting elementary and secondary education in environmental studies, is community conferences, for leadership at the community level in this field. So I am encouraged by what you say about some linkage between what you are learning in school and the attitudes of the people in your own community. In fact, I assume that young people like you are missionaries to the heathen in trying to encourage some of your classmates to have the same interests as you in environmental studies. Is that a fair way to put it?

Miss MERRYFIELD. I would not put it quite so dramatically.

Mr. BRADEMAS. Let me ask you, Mr. Henry, what comments you could make on the questions of priorities on environmental education? Where do you think we should be giving most attention, curriculum development, training of teachers, or some other particular part of the problem?

Mr. HENRY. I don't know which of those two that you just mentioned. I would name No. 1 and No. 2. I think they are perhaps both equally or both very relevant. I think teachers definitely need to be presented with new ways of doing things. Or they need to be presented with the opportunity that will allow them to try things. The world changes through our science curriculum—we try to teach that change is the fundamental base. Yet we find much of our curriculum structure has not changed. It is just difficult for me to see how we can live in a changing world with an unchanging curriculum structure and stay abreast or even close, the way things are going. So I think teachers need new ways. My own experience has taught me they are not necessarily coming down from the higher institutions. Again, we are getting the criticisms but not the solutions. Kids are aware of the fact we do have environmental problems. So I think the time is ripe, if we can come up with ways. One of my biggest problems started years ago, once I got through the subject matter, became the matter of motivation. You have something worthwhile to deliver. How do you deliver it to kids? You can tell by the looks on their faces whether you are succeeding in part or in whole. I would not say we ever achieve 100 percent.

There is a method so I would say the education of teachers, both in terms of environmental subject matter and the way to present the material is very necessary. I think we are going to have to break away from some of the old ways. In Ohio others advocate 5 years of a curriculum. The Ohio Education Association does not particularly know the direction that I want to take, but they are strong in this. They don't want 5 years of what 4 has been because it is not doing the

job. And I think we need some recourse and investigation into the ways of changing the way the regular school day is run. Those kids cannot be thrown in school in the morning and moved in along in a traction, 42 minutes and 42 minutes and 42 minutes. Life is not like that. It is not that compartmentalized. Problems cross discipline lines. I don't know whether I answered your questions as simply as you would like to have it.

Mr. BRADEMAS. I would like to put just one other question—and I am required to be upstairs to make a quorum so I must be rapid—and I would ask Mr. Fender if you would just give me an instance of the kind of cooperation and development with the community to which you referred as you described environmental education in your school system?

Mr. FENDER. There are a number of ways. We have an environmental group that has come into play quite a bit. We have brought in some parents. Parents have almost been brought into the situation. Our kids to my knowledge also have gone into and gotten some information in regard to the council. We have found out when we were attempting to do some of these things we actually had to get some information of our kids and also Jim Henry had to sit in the council meeting. There was a situation where we involved the railroad. There has been a lot. The PTA also has been quite involved in backing it, primarily lipservice right now. Interestingly enough a lot of the parents are getting feedback from their kids but actually after 1 year we have not involved the community that greatly. We would like to go the second year. The closest involvement has been within our attendant environmental court. It has been confined to one class. We would now like to expand it.

Mr. BRADEMAS. Mr. Offutt, could you describe very briefly the institute that you run?

Mr. OFFUTT. We feel that the institute is a support type of organization. Not all the cheers or community have the same kinds of approximation and we basically see ourselves as helping those teachers like Jim Henry that want to improve education. We see that this cannot be imposed and that curriculum cannot be imposed. It has to be experienced and we give the teachers the support and assistance. We find often administration like John Fender wanted badly to have something happening in the schools and teachers want the same thing, but they do not communicate that well perhaps. Maybe Jim and John do but in most schools they don't. We try to help in many different kinds of ways, with curriculum, with experiences, and we are trying to help also as a national demonstration project to initiate other programs such as this around the country.

Support-type service centers so to speak that will help the teachers and the kids that want to get out in the community and find out what is going on.

Mr. BRADEMAS. How much money do you get under the Environmental Education Act?

Mr. OFFUTT. Last year we got $65,000.

Mr. BRADEMAS. I would be grateful if you could make available to the committee some further description of your institute, and the way in which it operates. I think my colleagues would be very interested in seeing that.

I wish we could spend still more time, but as you know we have to be in several places at once here in Congress. I want to express my

own warm appreciation to all of you for having come to give us such thoughtful testimony.

As the Chair said we shall meet for the last day of hearings on this legislation next Thursday, and we will hear from Assistant Secretary of Health, Education, and Welfare, Sidney P. Marland, and from Walter Bogan, Director of Office of Environmental Education, and Congressman Robert Eckhardt of the State of Texas.

Thank you again very much for having come. The subcommittee is adjourned.

[Whereupon at 10:45 a.m. the subcommittee adjourned, to reconvene on Thursday, May 17, 1973.]

AMENDMENTS TO THE ENVIRONMENTAL EDUCATION ACT OF 1970

TUESDAY, MAY 17, 1973

HOUSE OF REPRESENTATIVES,
SELECT SUBCOMMITTEE ON EDUCATION,
OF THE COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee convened at 10 a.m. in room 2175, Rayburn House Office Building, Hon. John Brademas, presiding.

Present: Representatives Brademas (chairman), Hansen, Peyser, and Landgrebe.

Also present: Jack G. Duncan, counsel; James Harvey, assistant staff director; Christina M. Orth, assistant to the counsel; Gladys Walker, clerk, and Dr. Martin LaVor, minority legislative associate.

Mr. BRADEMAS. The Select Subcommittee on Education will come to order for the purpose of further hearings on H.R. 3927, a bill to extend the Environmental Education Act for 3 years.

The Chair should point out, for the benefit of visitors here today, that this is the third and final day of hearings on this legislation. We have already heard witnesses representing the public sector, the education community, students, and environmental groups. These groups all testified in favor of extending this legislation.

The Chair should also note that Senator Gaylord Nelson of Wisconsin, the distinguished Senate champion of the Environmental Education Act when the measure was first passed by Congress, has introduced in the Senate a companion bill to extend the act.

So we meet today at a time when the enthusiasm of citizens, educators, environmentalists and legislators for educational programs about our environment is at a peak.

Yet we also find that President Nixon's proposed 1974 budget would terminate the environmental education effort located in the Office of Education.

We have, therefore, invited officials of the administration to testify this morning so that they can explain to us their objections to the extension of the Environmental Education Act.

Our first witness this morning will be our distinguished colleague from Texas, Congressman Bob Eckhardt.

Mr. Eckhardt will be followed by Dr. Sidney P. Marland, Assistant Secretary for Education of the Department of Health, Education, and Welfare.

The Chair would also insert in the record at this point the text of a statement of another Member of the House of Representatives, Thomas Ashley of Ohio.

[Congressman Ashley's statement follows:]

STATEMENT OF HON. THOMAS L. ASHLEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. Chairman, members of the Subcommittee, it is a great pleasure to appear today before you and to express my warm support for your efforts to secure enactment of H.R. 3927, a bill to extend the Environmental Education Act of 1970 for three more years.

I know you have already heard support for this program from a number of teachers and students who have been involved in the program in Ohio, and who have discussed at some length the present situation with regard to environmental education in our schools. Certainly progress has been made in the last three years to improve the level of environmental literacy in this country. But just as certainly the process has only begun and, it seems to me, it is a process which so far has benefited very little from the federal effort. This is not to disparage the efforts of the Office of Environmental Education, or of the citizen groups and educators whose projects have been assisted by the Office under the Environmental Education Act. It is simply to recognize that environmental problems are very complex, that they do not fit comfortably into the structure and disciplinary divisions that have traditionally dominated our educational system, and that the Office of Environmental Education has been treated by the Administration like the slowest player in a game of musical chairs. Whatever the current policies, programs and budget levels of the Office of Education—and they seem to me to be continually going around in circles—environmental education has been left where the power and money were not.

The latest maneuver in this apparent sabotage effort involves the withholding of two-thirds of the fiscal 1973 budget for the environmental education program. While this situation arises out of a dispute over the processing of 1972 grants and contracts in the Office of Education, I am unmoved by Secretary Weinberger's assurances, to a number of my colleagues who wrote him in protest, that this slash in funds does not in fact represent any effort on the part of the Administration to cut back the program. Unfortunately, impoundment by any other name is just as arbitrary. I strongly concur in the opinion of the House Appropriations Subcommittee on Labor–HEW which has rejected HEW's reprogramming plan in this matter. The innocent, as Congressman Flood pointed out, should not be made to suffer for the sins or incompetence of the guilty, who in this case happen to be federal officials.

Given the levels of appropriations which the Administration has sought, this deprivation of two-thirds of the fiscal 1973 moneys is a little like robbing a beggar. The authorization levels for the original environmental education act were set by the Congress after very extensive and exhaustive hearings before this Subcommittee. I know we have had a general problem in the entire social area in achieving full funding of our social and educational programs, but the steady decline in the percentage of the authorization appropriated for environmental education, from 40 to 20 to 12 percent, bespeaks more bureaucratic hostility than budgetary stringency.

My own experience during our hearings on urban growth policy before the Committee on Banking and Currency leads me to urge you strongly to resist the Administration's foolish decision to terminate the environmental education program. It seems very clear that this country is going to have to move in the direction of guiding and controlling regional growth, that our policies for protection and use of land are woefully inadequate, and that achieving our basic social goals is impossible without much better policy in this area.

But wise planning in our metropolitan areas is only possible where the officials who must prepare the plans have a real understanding of the problems; and the planning process is only responsive where alert and aware citizens participate in making the decisions which influence it. This understanding cannot be taken for granted. The federal government has a responsibility to foster it, and the renewal of the Environmental Education Act could be a major step toward fulfilling that responsibility. I say *could*, because authorizations alone will not educate people about the environment. Actual expenditures are necessary, though that is something this Administration, in its claims that this Act has already fulfilled its purposes, does not seem to understand fully. I would hope that after you enact this legislation, you would vigorously oversee its implementation, as I know you have done to date. And I hope that other members of other committees will help you in this task. I, for one, stand ready to do so, and I applaud your efforts to insure a continued and strengthened federal program in environmental education.

Mr. BRADEMAS. Congressman Eckhardt has asked that we proceed with our next witness, Hon. Sidney P. Marland, the Assistant Secretary for Education of the Department of Health, Education, and Welfare.

Dr. Marland is accompanied by Dr. Bogan, Director of the Office of Environmental Education.

STATEMENT OF HON. SIDNEY P. MARLAND, ASSISTANT SECRETARY FOR EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, ACCOMPANIED BY WALTER BOGAN, DIRECTOR OF OFFICE OF ENVIRONMENTAL EDUCATION, USOE, AND JUDITH PITNEY, ACTING DEPUTY ASSISTANT SECRETARY FOR LEGISLATION, HEW

Dr. MARLAND. We are accompanied also by Miss Judith Pitney, Acting Deputy Assistant Secretary for Legislation for the Department of Health, Education, and Welfare. I would also like to introduce three other colleagues who will be available to the committee besides those I have introduced. Miss Sylvia Wright, program officer, Office of Environmental Education, Mr. Kent Jones, one of our staff members from OE's Office of Legislation, and Mr. Alford, assistant commissioner for Legislation, USOE.

Mr. Chairman, and members of the committee, I am pleased to appear before you this morning to discuss H.R. 3927, a bill which would extend the Environmental Education Act for 3 years.

The Environmental Education Act, which became law in October 1970, authorized the Commissioner of Education to award funds for a wide variety of educational activities that can help promote a better understanding of man's relationship to his environment. Specifically, these activities include: the development, demonstration, and evaluation of new curricula; the initiation and support of environmental education projects; and the dissemination of information and curricular materials. Public Law 91-516 also provides for grants to train teachers, community leaders, and public officials; to plan for outdoor ecological study centers; and to provide community education programs. The act authorizes the Secretary of HEW to render technical assistance in developing environmental education activities and resources to a variety of public and private agencies.

H.R. 3927 would extend the Environmental Education Act, which expires with the current fiscal year, until July 1, 1976. It would authorize $10 million for the purposes of the act in fiscal 1974, $20 million in fiscal 1975 and $30 million in fiscal 1976.

As you know, President Nixon has requested that no funds be appropriated for the Environmental Education Act in 1974. Extension of the Environmental Education Act is inconsistent not only with the President's budget request but with his governmental reform strategy as well.

We believe the developmental objectives of the Environmental Education Act have been achieved with notable success. Rather than continue to provide support for environmental education activities under the authority of a narrow, categorical program, the administration proposes that such activities be funded at the State's discretion under

a broader authority. The Better Schools Act of 1973 would allow States and local school districts to support environmental projects as their priorities determine. For fiscal 1974, some $440 million appear and would be available under the Act for supporting services.

There is good evidence to indicate that, given the choice, State and local school systems will sustain the environmental education initiative under the Better Schools Act. For example, in that part of the title III program which is wholly discretionary with State and local schools, $4.4 million has been identified by the National Advisory Council on Supplementary Centers and Services as funding projects in environmental education in fiscal year 1972.

CONTINUING FEDERAL EFFORT

Although the President has requested no funds for the Environmental Education Act in his 1974 budget request, the expiration of the act will not bring with it an end to Federal aid for environmental education projects. The Government will continue to commit its resources to the work of raising the national level of ecological consciousness. Programs carried on by agencies other than the Office of Education are continuing. But efforts in the Office of Education will go on as well.

In the coming fiscal year, the Office of Education will monitor the environmental education grants that will be made this spring. Consistent with what we see as the future role of the Office of Education, we expect to continue to provide technical assistance in the field of environmental education. While the precise form this assistance might take has not as yet been determined, such activities as advice to local school districts wishing to establish environmental education programs and liaison with other Federal environmental efforts may be included.

As I have already mentioned, under the proposed Better Schools Act local school officials would be able to make direct use of Federal dollars to support environmental education if they choose to do so. Money provided to a local district under the Better Schools Act for supporting services and materials may be directed to environmental education activities. We believe that the approach embodied in the Better Schools Act—that of leaving it to those closest to the classroom to determine their own needs and spending priorities—is the most appropriate way to provide Federal aid to our elementary and secondary schools.

ACCOMPLISHMENTS OF ENVIRONMENTAL EDUCATION ACT

I would like to review briefly the accomplishments in implementing the Environmental Education Act. It is our assesment that what has been accomplished in this regard has met the need to stimulate nationwide interest in environmental education.

During the last 2 fiscal years, funds appropriated under the Environmental Education Act have been used to support 236 projects throughout the country. The experiments these projects represent have been conducted by a variety of public agencies and private nonprofit organizations including local school systems, institutions of higher education, and citizen groups. They have been carried out in all 50 States, the District of Columbia, Puerto Rico, and the Trust Territory of the Pacific. Of these 236 projects, 78 have been for the

development of curricula, instructional materials and elementary and secondary level environmental education programs. 33 have supported statewide assessment and dissemination projects, 21 have provided for community education projects and 20 for outdoor study centers, 15 have supported the training of personnel in environmental education and 69 have been for the small grant awards authorized by the act.

As an example of the stimulative effect of this program, I would like to describe briefly to the subcommittee the program being carried on under the Environmental Education Act by the Arkansas State Department of Education. That department has trained more than 10,000 teachers and community leaders in environmental education practices and philosophy. The Arkansas State Department has also given technical assistance in environmental education to a number of school distrist in that State and has conducted environmental education workshops for both the public and private sectors.

Another example of a multiplier effect project which has been supported under the Environmental Education Act is the Luzerne-Lackawanna environmental education project in Scranton, Pa. This program reaches some 12,000 students now in 25 school districts. Under its auspices, student teacher citizen teams in 15 communities are mapping, monitoring and sampling the various environmental problems in their area with the aim of developing an environmental profile of Luzerne and Lackawanna Counties. This information will then be disseminated throughout northeastern Pennsylvania by educational television.

We believe that activities such as these have been a major factor in helping to raise the level of environmental awareness in the country, and I would be pleased to submit for the record a brief description of all 162 environmental education projects the Office of Education is currently supporting. But these projects are but a relatively small part of the Federal effort in this area.

For example, from the year fiscal 1972 we have been able to identify some $4 million worth of projects that have been supported by Office of Education funds outside the Environmental Education Office. These again are programs that meet the criteria of that office.

OTHER ENVIRONMENTAL EDUCATION ACTIVITIES

In addition to the activities of the Office of Education under the Endowment Education Act, other Federal agencies and independent groups are involved in similar efforts to increase understanding of the Nation's environment and of ecological issues.

The Environmental Protection Agency supplies to teachers and students information materials about what citizens can do to improve the quality of our environment. EPA produces television spot announcements and works with citizens' groups to encourage environmental awareness. This agency also administers the President's environmental merit awards program, conferring recognition on worthwhile environmental efforts.

The Department of Interior, through the Bureau of Land Management, is assessing community needs and inventorying national resource lands in order to identify those lands which can be used for environmental purposes. The Bureau has entered into a cooperative

agreement with schools in Oregon, Idaho, Wyoming, and Montana to use public lands in the study of environment. In Colorado, Bureau employees are working closely with the U.S. Forest Service to implement that State's master plan for environmental education.

The National Park Service has a national environmental study area (NESA) program to provide technical assitance to groups in developing outdoor study centers near schools, and the national environmental education development (NEED) program to develop K–12 teaching materials. The National Park Service and the Office of Education are cooperating in a program to designate outstanding outdoor study areas and are jointly conducting a program of seminars for environmentally conscious Government officials.

The Forest Service, in the Department of Agriculture, sponsors environmental workshops for educators, community leaders, professional resource managers, and others. These workshops emphasize the process approach to education and are held in a variety of settings ranging from national forests to urban school grounds. They feature involvement activities which help a person develop the skills necessary to identify and analyze environmental issues and to seek solutions of the environmental problems in his own community.

All of this Federal activity, coupled with the significant efforts of private groups and organizations, has focused attention on the need for environmental education. Local school authorities are teaching students about their relationship to the Earth around them, and we believe that they will continue the efforts stimulated by Public Law 91–516.

In summary, Mr. Chairman, we believe that the Environmental Education Act has contributed toward the stimulation of a broad national awareness of, and interest in, ecological issues. We are convinced that the program of education revenue sharing authorized by the Better Schools Act, which provides States and localities with the freedom to choose programs they believe to be effective, is far more preferable than the current fragmented way in which we give Federal aid to our schools. The Environmental Education Act is a part of that fragmentation. For these reasons, we would strongly urge that H.R. 3927 not be enacted.

Mr. Chairman, this concludes my prepared statement. I will be happy to respond to any questions you or other members of the subcommittee may have.

Mr. PRADEMAS. Thank you.

Dr. Marland, as you know, the operations of the Office of Environmental Education have continued to be of keen concern to this committee and we have held oversight hearings on the operation of this legislation. I wonder if you could give us, Mr. Secretary, some judgment, from your position, of the operations of that office over the past year.

You may recall that about a year ago, in April, 1972, the members of this subcommittee asked Don Davies, then of the Department of Health, Education, and Welfare, a similar question. He responded that management in administrative matters would be an important part of the Environmental Education effort in the next year.

Dr. MARLAND. The Office of Education continues to suffer from the Government-wide freeze on employment. The Environmental Educa-

tion Office continuesto be led vigorously and effectively by Mr. Walter Bogan and his associates. Dr. Ottina, the Commissioner of Education-designate has, within the very serious constraints of physical support, given personal consideration to this program and even though short of the potential staff we wish the program had, the program has been administered effectively.

The grant awards for fiscal year 1973 have been selected and are now being processed on schedule. In my judgment, apart from the accident of contracts management a year ago, which has unfortunately damaged this and other programs, the actual staffing, the administration and organization of the Environmental Office has been of first quality.

Mr. Brademas. In that connection, Mr. Bogan, I would like to put a related question to you. I am sure you have looked at the oversight hearings this subcommittee has conducted and you are aware of the concern on the part of the members of the subcommittee, that the Director of the Office of Environmental Education have access to the Commissioner of Education and, given the change in administrative structure in HEW, to the Assistant Secretary. Do you see the Commissioner and the Assistant Secretary when you need to, and have you found, since assuming your position, that some of the administrative problems you first encountered have diminished?

Mr. Bogan. I have had ample opportunity to meet with the Secretary and the Commissioner as well as the previous Deputy, Dr. Davies. I think we have had complete support from Dr. Davies, Dr. Ottina and Dr. Marland.

Mr. Brademas. How many people do you have on your staff?

Mr. Bogan. Currently we have five civil servants, four professional and one clerk. We have authority for eight, three positions are unfilled. We have been unable to fulfill them as a result of the Department-wide freeze.

I should point out we expected in December that we would have had a full staff complement of 13. This was not achieved as a direct result of the freeze on hiring.

The staffing promise that Dr. Davies made was one that would have been acted on had these other things not occurred.

Mr. Brademas. That goes to the integrity of the responses we, on the committee hear. You may recall, Dr. Marland, and I quote you, you gave asbolute assurance to this committee in 1971—here we are in 1973—that eight full-time staff members would be in the office. And Dr. Davies in April of 1972, told our subcommittee there would be added three more staff members to the office. I begin to wonder what words like "absolute assurance" mean—are they inoperative? We want to be sure, when you tell us something, you are telling us something that we can believe.

Dr. Marland. Those things are not in our control. We do believe in sustaining our integrity with this committee and the Congress altogether. A Department freeze escaped our control and we were not able to persuade OMB to agree to our request.

Mr. Brademas. I am not persuaded by that response; you gave us your assurance in 1971. When was the freeze put on?

Dr. Marland. In the following January and a subsequent freeze in the following December.

Mr. BRADEMAS. Do you see why we must greet with profound skepticism anything you tell the committee? I would expect you would use great caution in using words like "absolute assurance." I do not care what you say, I care here what you do, to quote a former great American.

Your prepared statement, which was made available to our subcommittee—and I am grateful to you for having done so—a couple of days ago, does not, I was rather astonished to note, even mention what is probably the most serious problem facing the Office of Environmental Education today. I am talking about the fact that in March of this year the administration decided to eviscerate the program by refusing to spend $2.025 million of the 1972 funds appropriated under the Environmental Education Act.

The effect of that decision, as I understand it, would cut the budget from the Environmental Education program from $3.2 million to $1.045 million. I wonder first, why you have chosen to ignore this problem which ought to be as plain as the nose on anybody's face, and, second, why the decision to cut the funds was made.

Dr. MARLAND. Let me give you a chronology of the unhappy events that led to the circumstance, Mr. Chairman, approximately 40 procurement packages, which are substantial grants administered by this Office of Environmental Education, were submitted to our contracts and grants office through the Budget and Finance Office on May 15, 1972, for preliminary processing. This was in accordance with regular procedure for the Office of Education.

On May 26 the final slate of proposed awards was approved by the Deputy Commissioner and the remaining procurement packages prepared. This was late May.

Further processing of procurement packages for contracts and grants was delayed and were backdated and awaiting certification of civil rights compliance as required in the law and in the meantime, on June 12, congressional notifications dated June 30 were submitted for reproduction, project identification accounting numbers had been assigned and were included in the notification. Required clearances were obtained June 21. A congressional announcement was made that same day. The remaining procurement packages were submitted to the contracts and grants office on June 27. Presumably according to procedures established in that office and that is well before the end of the fiscal year, notification of the grants were sent to these people.

There was a failure to process mechanically all of our grants, even though the announcements had been made. We found to our embarrassment that approximately $2 million worth environmental education grants had not been processed in the normal technical sense of contracts and grants because of the immense backlog of many other grants in the grants of contracts office at that time.

I might add this subject has been the object of a great deal of concern, not only in my office but also in the office of the Secretary of HEW. We have taken very stringent methods to avoid having it happen again.

I think that the term "backdating" has carried with it some kind of insiduous meaning. It is not a matter of anything dishonest, it is rather a matter of regulatory provisions in which long-established customs were changed and those funds that had not been formally,

actually and technically, contracted for had to be closed out at the end of the fiscal year.

Mr. BRADEMAS. You know, the members of this subcommittee are not the ones that produced this backdating.

Dr. MARLAND. I would not suggest that, Mr. Chairman.

Mr. BRADEMAS. What I am saying is that you have deliberately ignored the will of Congress by delaying the expenditure of funds appropriated for 1 fiscal year until the very last minute.

I would recall the little lecture my distinguished colleague, the gentleman from Washington, Mr. Meeds, gave to Don Davies on April 17, 1972, with respect to the backward funding procedures that the people in your shop are using. It is not as if this subcommittee has not put you on notice of this matter.

Secondly, the question of whether what you have done is legal or illegal is an open question.

In this respect, I notice the testimony of April 17, 1973, of a member of the Advisory Council on Environmental Education, Linda Lee, who told this committee:

> It is our contention the backdating is not illegal in that it has been held by a series of Comptroller Generals that moneys are obligated when grants are awarded and the commitments are made and Congress is notified.

As you know, all those activities took place before June 30, 1972. I noted that you were quoted in the April 18, 1973, issue of the Washington Post to this effect:

> All contracts and grants negotiated and concluded by program officers before July 1 were viewed at the time as valid, proper and wholly legal even though the grants office had not been technically able to conclude the paperwork because of its backlog.

So we are not yet sure, Mr. Secretary, that any illegality has been involved.

But I now turn my attention to a memorandum dated April 26, 1973, from Charles Miller, the Comptroller of the Department of Health, Education, and Welfare to the Secretary. I have a copy of that memorandum. It states that with the exception of the bilingual program, the dropout prevention program and the special projects program under title III of ESEA, all other programs could continue unreduced.

Then it goes on to say:

> However, there is a special situation with reference to the Environmental Education Program which is worthy of note. This program would experience a significant cut back in program level from $3.2 million to $1.1 million or about a two-thirds cutback in the amount available for new projects. We have been receiving and anticipate further Congressional flack on the potential impact on this program if no relief is provided for the backdating problem. Dr. Marland is not proposing any relief, however, since the Budget proposes phasing out both programs at the end of 1974.

The memorandum in effect acknowledges that the program could continue without reduction, but it goes on to say the Office of Education does not choose to do so because they do not want to do so.

I must say I think it is disgraceful behavior on your part and the environmentalists who have appeared before us are incensed about this.

The educators who are concerned about environmental education are incensed.

My distinguished colleague, a very active member of this subcommittee, Mr. Peyser, took the initiative of drafting a letter, which was

signed by 20 Members of the House, to Secretary Weinberger to show our concern about these cutbacks.

I must say you have heard this ad infinitum, Mr. Secretary, but I am concerned to see what I perceive to be a continued ignoring of Congress on the part of you and your associates. I refer to the memorandum Mr. Miller sent to Secretary Weinberger alluding to the legitimate expression of concern, the kind of concern the people of the United States elected us to have, as "congressional flak."

There is congressional flack going on in the other body, even as we meet, with regards to that type of attitude in the 1972 campaign.

Congressman Flood, the chairman of the Subcommittee on Appropriations, has rejected the reallotment plan, again in violation of the intents of Congress, to which Mr. Miller referred in his memorandum. In a letter of May 10 to Secretary Weinberger he said:

> While we do not wish to condone illegal or improper administrative practices in any way, we do not believe the innocent, who are in this case children, should be made to pay for the sins or incompetency of the guilty who are in this case Federal officials.

He went on to say:

> The plan would require substantial cuts below the President's revised 1973 budget for a number of other programs which have been assigned high priority by both the President and the Congress such as bilingual and environmental education.

Mr. Secretary, let me summarize: This problem is one of your making, not our making here in Congress. You are on record, yourself, as affirming the legality of what has happened. There is significant opposition on the part of Republicans and on the part of Democrats as well as among the public as to what you are trying to do.

If I am in error, I hope you will tell me now.

Dr. MARLAND. I think you are substantially correct as you cite these facts. I think I should, however, amplify one part of the letter you quoted from Mr. Miller. I think the committee should realize the distinction between programs that were to have funds budgeted for 1974 and therefore which provided some opportunity for reprograming as opposed to those without funds in the budget for 1974. This was not a willful act. We were excepting environmental education from our strenuous efforts to restore that $2.4 million that had been backdated. There was no way we could recover funds from 1973 or reprogram funds in 1974 to sustain those programs.

Mr. BRADEMAS. You say in your statement that "It is our assessment that what has been accomplished in this regard"—here you are referring to implementation of the Environmental Education Act—"Has met the need to stimulate nationwide interest in environmental education."

That sounds as if you think it has been a fairly constructive program. You refer to an assessment. I am the chairman of this subcommittee and sponsor of this bill, and I know of no assessment.

Dr. MARLAND. The assessments so far have necessarily been limited to staff judgments as to the effectiveness of one program. There is an assessment now going on, as I noted, with the advisory council. These are not formal, indepth evaluations.

The evaluation of this program at this stage would be premature, the program has not existed long enough to warrant a full-scale scien-

tific evaluation. The cost would probably be more than the program.

Mr. BRADEMAS. With that explanation, I understand why you could not undertake an evaluation when Mr. Bogan has only five people.

How can you possibly justify the statement that was made before the House Appropriations Subcommittee on March 7, 1973, in respect of the 1974 HEW budget proposal by Secretary Weinberger himself in which he said:

> Similarly, environmental education and nutrition and health have resulted in scattered efforts which, while they may have been worthwhile themselves, such as encouraging highschool students themselves to set up a recycling center, have had no effect on the environmental problems we are faced with.

Don't you talk to each other down there when you prepare these statements? You come up here and make statements about the accomplishments of meeting the need to "stimulate nationwide interest in environmental education."

The Secretary says the program is not worth the power to blow it up.

Dr. MARLAND. With all due respect to the Secretary's viewpoint, I would have to say I would hold at this moment the environmental education program has had impact in a number of school systems.

The Secretary may be referring to some particular environmental education projects with which he is familiar. I would say, broadly speaking, and I think the Secretary would agree with me, that the purpose in arousing environmental education in the school community has at this stage had significant realization.

Mr. BRADEMAS. In that event, the Secretray is deceiving the Committee on Appropriations. That is the only judgment any honorable person can come to. That is very serious business, very serious. I would like to get to the point where I could believe the words of an official of this administration in the Department of HEW, as far as that goes, any department of Government.

Look at your testimony and compare it with what Secretary Weinberger is telling Dan Flood.

You are singing different tunes. You say it is a fine program but you want to kill it. Then you send the Secretary over there to say it has not amounted to anything. You come tell us it has been so effective we do not need it because we have all these schools stimulated.

It is really Alice in Wonderland time. We have been going through this kind of thing in this subcommittee, especially in respect to this program, so long that it would be laughable if it were not so serious.

Mr. Secretary, just one other question: I have others but I have already taken more time than I should have taken.

One of the justifications, as I understand it, for the administration proposal to kill the Environmental Education Act is you think this is the kind of a program that could be carried out under the Better Schools Act. And you say that education activities under the Environmental Education Act, if I rightly quote you, are of the kind that could be described as a narrow categorical program.

I would call to your attention the fact that the U.S. Commissioner of Education designate, Mr. Ottina, has written "Environmental education is much more comprehensive than otherwise worthwhile but specialized approaches to environmental subjects."

Again, I do not have the impression that you all sit down and talk about these matters because you have different attitudes. More to the point, there is not going to be any Better Schools Act and all those

people you have working in HEW are wasting their time on that—they might as well sit around reading The Washington Post.

I say that because Mr. Quie is against it; Mr. Bell, who is ranking minority member of this committee, has profound objections; Mr. Dominick is against it. There is not going to be any Better Schools Act.

You are just then whistling in the dark on that. Even if there were—let us hypothesize that a miracle were to be performed and there were to be a Better Schools Act—a Better Schools Act, as I understant it, would be to help elementary, secondary schools, right?

Dr. MARLAND. Right.

Mr. BRADEMAS. If you have read the Environmental Education Act, as I am sure you have, Mr. Secretary, you will appreciate that the purpose of the legislation is not solely, to support activities in this respect at the elementary and secondary school level. The legislation also makes funds available, for example, for the support of community conferences for community leaders in the environmental field.

I just do not think that you can say that if the Better Schools Act were passed the objectives of the Environmental Education Act could be met.

Dr. MARLAND. Let me clarify a little. I would say such things as community conferences dedicated to the purpose of education, in any form, would be well within the discretion of State school officers or local school administrators under the terms of the Better Schools Act. That portion of the Act which deals with general support, which I mentioned provides the sum of $440 million would clearly serve all of the functions implicit in the act as it now stands, including community activities, including the funding of education-related programs at the discretion of the local government.

Mr. BRADEMAS. Thank you, Mr. Secretary.

We found a concept that the administration is using again and again, in justifying your opposition to any significant amount of money for this program to be, the idea of synergism. By that you mean you could support, through other departments of the Government, environmental activities. You do not mention synergism this morning.

Dr. MARLAND. I would be pleased to comment on that.

Mr. BRADEMAS. Let me give a little history. On October 8, 1971, Dr. Rodney Brady promised a Senate Subcommittee on Intergovernmental Relations a breakdown on $11.2 million the Department of Education was spending.

On October 28, 1972, you appeared before this subcommittee and I requested such a breakdown and you and Dr. Davies promised us a breakdown by the spring of 1972.

On April 17, 1972, Dr. Davies gave our subcommittee a listing of $4.6 million, not $11.4 million, and a promise of additional listings later. And he said the Office of Education would be spending $14 million in 1973 on environmental education.

It is now May 17, 1973 and this subcommittee has not yet received that 1972 list, not to speak of the 1973 list. What is the problem?

Dr. MARLAND. I have the 1972 list, Mr. Chairman. The 1973 list is still beyond reach because many programs are still in the process of finalization of grants and contracts. It will take some time before any listing had been made of programs relating to the environment for fiscal 1973, which, as you know, is still in motion.

As for 1972, we have identified and will submit for the record a list of some $11.4 million worth of projects that do meet the criteria for our environmental education regulations.

Let me add one of the reasons for the unexplained delay in this process is that sums substantially exceeding the $11.4 million were identified broadly as being administered by State and local school systems with local resources that addressed the subject of environment. They were not all as compatible with the regulations we had published concerned our terminology and, therefore, we have selected only the $11.4 million to satisfy that assurance to you and this committee of some time ago.

Mr. BRADEMAS. I appreciate the diplomatic response but I am going to say I do not believe what you tell me. I have looked at some of these lists where you try to say to us in Congress, "See, all the money we are spending on environmental education, look at this list."

You have NDEA, title IV, graduate fellowships for chemistry, food research, radiation biology, urban planning included in those lists. If you have read the statute known as the Environmental Education Act, have read the committee reports on it, and have read the hearings, you will understand that the kind of activity carried out under NDEA title IV fellowships is not the kind of thing intended to be supported under the Environmental Education Act.

You have grants listed to several colleges and universities for things like land use area development programs. I just want to tell you that is dishonest. Don't do that to us. You just totally undermine the credibility of what you tell us. You know, Dr. Marland, that is not the kind of thing this subcommittee had in mind when we were writing this legislation. You are sitting here with the originial sponsor of the act.

We know what we meant.

If you do not agree, tell us you do not agree. All I want of course for you to do is not to deceive us. That is deceptive.

Dr. MARLAND. Apparently the chairman has the report I offered for the record. I will still be glad to submit it if you wish. Our personnel in charge of these activities, assure me that the projects listed are related to and germane to the purposes of environmental education though, indeed, they are not in all cases, precisely environmental education as one person might define it. They are broadly environmental education activities now being supported——

Mr. BRADEMAS. That is not what I said. I am not really a child. I said, related to the purposes of the Environmental Education Act. I did not say related to the purposes of environmental education.

Do you appreciate the significance of what I just said to you?

Dr. MARLAND. Yes, I understand.

Mr. BRADEMAS. The Environmental Education Act is not a higher education aid bill. Do you understand that?

Dr. MARLAND. Yes, and I understand a good bit of environmental education goes on in higher education.

Mr. BRADEMAS. I understand that but that is not the kind of law we wrote.

Read the law and obey the law. I have sermonized you ad infinitum. Having wrestled with this Environmental Education Act, I am not at all astonished at the trouble we have been having in this town for the past couple of years. It is the attitude of contempt for what the Con-

gress of the United States has written into the law of the land that has gotten you in trouble.

Dr. MARLAND. We have made no claim these $11.4 million programs do precisely comply with the law.

Mr. BRADEMAS. Then what is the point in coming in and talking of them as if they were related to the purpose of our committee—which is to conduct oversight on programs of the Enviromental Education Act?

We do not get into Ruckelshaus' shop. We do not, at this point, get into your shop handling the Higher Education Act. We are not interested in that at the moment. We are interested in how honestly and faithfully you are implementing the intention of Congress as stated in the Environmental Education Act of 1970. You are not doing it.

I have one other question. I use this as a sort of symbol. It derives from what you have been discussing. In your statement you allude to environmental education programs conducted by the national department of park services and forest services.

How much is the Forest Service spending for these programs?

Dr. MARLAND. I cannot tell you. We can determine that. I know our staff works closely with them in their work.

Mr. BRADEMAS. Mr. Bogan.

Mr. BOGAN. I cannot respond just how much is spent by the Forest Service on environmental education. I know they are involved in this area. We have had occasion to work on a number of cooperative activities.

Mr. BRADEMAS. Don't you think, Mr. Bogan, that either you or Dr. Marland should be able to give an answer to that question? You, Dr. Marland, are on shaky ground to come in here and tell us, "the National Park Service has a national study area program to provide technical assistance," and so on.

"The office of environmental education and the park service are cooperating closely and are jointly conducting a program of seminars." You go on to say "The Forest Service sponsors environmental work shops for educators, community leaders . . ." "All of this Federal activity," you conclude "coupled with the significant efforts of private groups and organizations, has focused national attention on the need for environmental education."

In the first place, you do not know the activities you are praising.

Dr. MARLAND. I disagree with that.

Mr. BRADEMAS. What is the purpose of it?

Dr. MARLAND. I do not know the magnitude.

Mr. BRADEMAS. I do. The Forest Service has spent in the last 2½ years, in the Washington office, approximately $20,000 on environmental education activities. If field office expenditures are considered, the total might climb, for the United States and Canada, to $60,000.

I suggest your testimony has been quite deceptive. Don't give us testimony that suggests you are taking care of environmental education in other agencies, and, therefore, you do not need this program. Clearly, the Forest Service's activities in this area are almost nonexistent.

Dr. MARLAND. We were talking of programs being carried out by staffs of Government agencies, including the staff of the Office of Education. There is no effort made here to say that the Department of Agriculture or Interior or anyone else is providing grants but they

are providing staff work to conduct activities with their own personnel as we are doing and joining with them. I assume their program is not intended to be a grant program.

Mr. BRADEMAS. I did not say it was. I have not said a word about grants or staff. All I have done is quote to you your own testimony. I quote again: "All this Federal activity," there is not a word about grants or staff in there.

It is quite clear, Mr. Secretary, that your testimony here was designed to persuade us that other agencies of the Federal Government are active in this field. Isn't that the reason you told us this?

Dr. MARLAND. This is the position this administration is taking in order to consolidate its activities in our common concern toward environmental education.

Mr. BRADEMAS. All I am saying is that (a) you had better find out what the other agencies are doing; (b) They do not seem to be doing very much; and (c) Well, I had better desist.

Mr. LANDGREBE. Will the chairman yield?

Mr. BRADEMAS. Yes.

Mr. LANDGREBE. I talked to Mr. Pilsey of EPA and he tells me in fiscal 1973, the Environmental Protection Agency which has been created since President Nixon was first elected, will have available in 1973, grants of $6.9 billion for construction grants and the money has been authorized. For all other purposes, including graduate training grants to colleges, $520 million is authorized of which $8 million of this amount is being earmarked for graduate training programs.

I asked if EPA had flexibility in the priorities of this $520 million, and he said, yes, to some extent they could increase this training money if there was a demonstrated need to do so.

Mr. BRADEMAS. We do have some information on that.

I appreciate the comment from my colleague and appreciate the support he has given to the line of questioning I was putting to the Secretary.

I agree the Federal Government does make available funds at the higher education level that relate to environmental education. That is not the question we were talking about. The question we were talking about might be put to the gentleman from Indiana rhetorically—I am sure he would agree with me—the EPA does not make money available for environmental education at the elementary and secondary level.

I would be astonished if they did.

Thank you, Mr. Secretary, and Mr. Bogan.

Dr. MARLAND. May I add one point there?

Mr. BRADEMAS. Yes.

Dr. MARLAND. It may be the data which you described as the synergy list of programs may not be complete and I would like to offer that for the record, perhaps showing you more appropriate illustrations of programs we have found of the Federal Government that might be better examples, than those called to your attention.

Mr. BRADEMAS. I would be grateful if you would do that. Our purpose on the subcommittee is not to keep you from making available to us information on what you are doing. We welcome information. We want to know what you are doing. What distresses us is the information we have been getting has not been really accurate.

[The information referred to follows:]

LIST OF GRANTS MADE FOR ENVIRONMENTAL EDUCATION PROGRAM APART FROM ENVIRONMENTAL EDUCATION ACT

1. Vocational Education Act: Minnesota Environmental Sciences Foundation, Inc., Minneapolis, Minn. (title: Exemplary Vocational Education Program, Based on environmental studies (K–14)) ---------- $150,000

   The project is designed to develop awareness to the work, specifically to careers in environmental control; exploratory community experiences in environmental control occupations, job-entry-level skills for water pollution control technicians, expanded vocational guidance and placement services are important facets of the program.

2. Education Professions Development Act, part E: CUNY Hunter College, New York, N.Y. (16 fellowships to college teachers in environmental health science/education) ---------- 88,000

   Tuskeegee Institute, Tuskeegee Institue, Ala. (title, Institute in Environmental Science for College Teachers) ---------- 65,000

   This 8-week summer institute will train 2-year and 4-year college teachers in environmental problems including pollution and misuse of our national resources. It is anticipated that the program will result in greater involvement of minority groups in solving the environmental problems of the nation.

   Bowling Green State University, Bowling Green, Ohio, Title, Summer Institute in Environmental Management for Teachers ---------- 70,000

   A summer institute for 2-year and 4-year college faculty in environmental studies programs. The program includes study of ecologica principles governing pest species management and environmental pollution, governmental and political considerations, economics, and approaches to solutions.

   Wayne State University, Detroit, Mich. Title, Institute in Environmental Education for Junior College Educators.. 65,000

   This summer institute will provide training in various aspects of pollution and ecology for junior college teachers from the Midwest. A purpose of the institute is to assist in the establishment of curriculums in environmental technology in junior colleges as well as to strengthen general environmental education in the 2-year college.

   Miami-Dade Junior College, Miami, Fla. Title, National Training Program in Environmental Education for Community College Faculty ---------- 140,000

   This is a nationwide program to train junior college teachers in environmental education. Workshops will be held throughout the country for maximum impact on the junior colleges.

3. Higher Education Act, title III, strengthening developing institutions:

   Lake City Community College, Florida ---------- 50,000
   Indiana Institute of Technology, Indiana ---------- 45,000
   Inter-American University, Puerto Rico ---------- 75,000

Projects for development of environmental education curriculum components

4. Higher Education Act, Title II-B, Librarian Training:
   - Western Michigan University, Kalamazoo, Mich., Title, Institute on Environmental Information Programs for Public Libraries—30,000
     The purpose of this institute is to train 25 practicing public librarians to be specialists in methods of acquiring, organizing and disseminating environmental-ecological information. Participants will be taught how to establish and maintain an environmental information center. The program will consist of lectures, discussions, field trips, and hands-on activities.
   - California State College at Long Beach, Long Beach, Calif., Title, Multi-Media Selection and Production—25,000
     An institute for supervisors of school and public libraries on methods of producing and selecting multimedia materials for environmental education.
5. Education Professions Development Act, Part D:
   - Jefferson Union High School District, Daly City, Calif—48,000
   - Northern Colorado Education BOCES, Boulder, Colo—39,000
   - University of Maine at Portland-Gorham, Gorham, Maine—13,000
   - Baltimore City Public Schools, Baltimore, Md—12,500
   - University of Nebraska, Lincoln, Nebr—30,000
   - State University College at Buffalo, Buffalo, N.Y—12,300
   - Toledo Public Schools, Toledo, Ohio—29,800
   - Department of Public Instruction, Pierre, S. Dak—50,000
   - Central Washington State College, Ellensburg, Wash—50,000
     Preservice and inservice teacher training programs in environmental education. Most participants of these projects plan to teach at the elementary and secondary levels.
6. Manpower Development and Training Act, MDTA:
   - Denver Community College, Denver, Colo—32,000
     Seminars sponsored by USOE and Denver Community College to identify desired components of a grade 7 through university environmental curriculum based on integrated pest management.
7. Cooperative Research Act:
   - Population Education, Inc., Washington, D.C—50,000
     A project to develop supplemental curriculum material in population education for secondary schools.
8. Public Law 480, International Studies:
   - The Maxwell Graduate School of Citizenship and Public Affairs, Syracuse University, Syracuse, N.Y—94,000
     A 12-month environmental education research and study project to be conducted in Yugoslavia by Syracuse University. The project attempts to facilitate the development of environmental education resource materials based on comparative analysis of American and Yugoslav environmental problems and environmental education needs and resources.
9. Elementary and Secondary Education Act, Title VIII—Dropout Prevention:
   - Fall River Public Schools, Fall River, Mass., Title, Water, Air, Conservation of the Environment—60,000
     This component of a dropout prevention project involving a group of potential dropouts at the secondary level. Their instructors and student assistants will help them gain environmental understanding and experience, with special emphasis on the condition of water, a local community concern. The students will assist in the study of South Watuppa Pond and the Algae nuisance which besets it: analyses of the local water supply and the waters of Mount Hope Bay; and investigation of thermal and air pollution.

10. Education Professions Development Act, Part E:
    Western Michigan University, Kalamazoo, Mich., Twelve fellowships to college teachers in environmental science/studies ---------- 67,600
11. Elementary and Secondary Education Act, title V:
    Northeastern Environmental Education Development, New York State Education Agency---------- 71,600
    A project using funds for subgrants or contracts to disseminate materials, develop prototype materials, develop and test instruments etc. which are or can be of significant interest participating States for environmental education purposes. Participating States include Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, Pennsylvania, Rhode Island, and Vermont.
    Environmental/Ecological Education Planning Projects, North Carolina State Education Agency---------- 50,000
    Project funds are divided among the three participating States to enable them to develop a structure and a program in environmental education at the State level and to enable them to assist other States next year in similar developmental activities. The participating States are Florida, Maryland and North Carolina.
    Western Regional Environmental Education Cooperative Project, California State Education Agency---------- 50,000
    Project funds will enable representatives from State educational agencies and State resources agencies to work together in developing and strengthening ways of cooperating to improve environmental education in each State. Participating States are California, Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.
12. Elmentary and Secondary Education Act, Title III:
    Los Angeles City Unified School District, Los Angeles, Calif. Title, A Model Educational Program in Ecology, K-Adult Education ---------- 292,000
    A comprehensive program in ecology from k-adult Education will be developed, implemented and monitored. A sequential program in environmental education will be developed, and instructional materials for pupil and teacher use will be prepared. An ecology center complex will be established; two mobile ecology laboratories will be developed; and a television series on ecology for elementary and secondary school levels will be producted.
    District School Board of Lee County, Fort Myers, Fla., Title, Model Strategy for an Effective Environmental Education Program ---------- 111,400
    A program to foster environmental awareness, sensitivity and responsibility on the part of students at all grade levels will be implemented. Curriculum materials for grades 6–8 will emphasize understanding ecological consequences. For grades K–5 materials will center on environmental awareness, sensitivity, and very basic ecological concepts. Students will acquire skill in sampling, surveying, and maintaining environmental conditions.

Community Unit School District No. 200, Woodstock, Ill., Title, Woodstock Environmental Education Project 80,000

An environmental education program will be established to develop positive attitudinal and behavioral patterns of teachers, students, and other citizens concerning environment so as to effect improvement and enhancement of environmental quality. Students, teachers, and parents will identify environmental problems of the area, State, and Nation; will formulate proposed solutions to identified problems and will develop materials and programs to augment the existing curriculum. Through these activities, participants will gain understanding of ecology and will learn to identify environmental problems, and to work through legal means for orderly solutions.

Shawnee Mission Unified District No. 512, Shawnee Mission Kans., Title, Cooperative Learning Through Environmental Activities in Nature 111,000

An environmental education program will be established which will eventually serve the entire school district. The program will include cross-curricular involvement, interaction among children at all grade levels, indoor-outdoor ecological study, urban-suburban-rural-underdeveloped area field studies, and cooperative use of existing county park facilities and nonprofit outdoor education foundation facilities. An environmental education laboratory will be cooperatively developed. Selected school personnel will participate in a summer workshop to develop the program and related audiovisual materials including programed cassette tapes for small group student field study.

School district of city of Wyandottee, Wyandottee, Mich., Title, Strategies for Environmental Education—Project SEE 240,000

A model environmental education program aimed at developing people who are consciously aware of their environment and are motivated to assume an active role in efforts to maintain and improve the environmental will be implemented. The curriculum will include specially designed environmental education packages which will be utilized by selected students. Efforts will be made to involve the entire community in the project on a continuing basis. University personnel will assist the preservice and inservice environmental education of teachers.

Sole Supervisory District to Putnam and Westchester Counties, BOCES, Yorktown Heights, N.Y., title: The Area Education Agency's Role in Developing Environmental Education 250,000

An educational program involving two school districts will be developed. Activities in each district will focus on establishment of multi-district student environmental monitoring network concerning air, water, soil, waste, noise, and population to function first within the project area and later to spread throughout and beyond the State. The project will also establish a clearinghouse to deal with environmental materials for elementary and secondary education and will plan for the active involvement of State Education Department and State Environmental, Conservation Staff, as well as the 45 other Boards of Cooperative Education Services (BOCES) in the State.

Golden Valley School District No. 275, Golden Valley, Minn., Title, Community Environmental Studies Program for grades 5–12 ..... 162, 469

An environmental studies program will be established to promote environmental literacy through continued exposure to underlying principles and concepts presented within the matrix of the learner's immediate experience. Participants will make naturalistic field observations to describe the socio-ecological research, classical design and statistical procedure, controls, social action and survey methods. The learner's knowledge of man-land problems will stem from observations and experiences with environmental problems in the social context within which they occur.

Berks County School Board, Reading, Pa. Title, An Interdisciplinary Problem Solving Approach, in Environmental Education 112, 000

An interdisciplinary, problem-solving curriculum in environmental education for all age levels will be developed in conjunction with the State-funded construction of facilities at the Nolde Forest State Park. The curriculum will be developed around five major resource areas—water, earth, biological resources, meteorological resources, and heritage—and will be pilot tested in the Park facility and surrounding communities. Teacher training in the use of the facilities and curriculum will also be conducted.

Anderson School District No. 5, Anderson, S.C., Title, An Environmental-Ecological Education Center 115, 000

An environmental/ecological education center will be established for exceptional students, including academically talented and handicapped students. A resident and day environmental learning center will be developed on a 45-acre site near a lake. There all environmental resources and problems peculiar to the area will be investigated by the participating students and their teachers.

Cateret County Board of Education, Beaufort, N.C., Title, School Community Cooperative Environmental Studies, Project 100, 000

A program designed to promote self-directed and investigation-oriented learning which molds schooling with education in the "real like" of the community and the total environment by placing students in actual situations to observe the functioning of the socioeconomic system. Three classes of juniors and seniors of "moderate abilities and ambitions" will be placed in a full-year, half-day elective course replacing their regular English, social studies, and science program in order to conduct individual and group field research in the community.

Laramie County School District No. 1, Cheyenne, Wyo., Title, Eco Curriculum Development and Learning Laboratory 60, 000

A curriculum development and learning laboratory and satellite sites will be established to develop and present an environmental education curriculum for Grades K–12 and a special curriculum for handicapped children. The curriculums will emphasize knowledge of environmental problems, methods of solving these problems and will be developed by instructional teams from social, behavioral and hard sciences.

In addition, the National Advisory Council on Supplementary Centers and Services has reported 60 projects totaling $4,419,051.

Florida:	
Broad Spectrum Environmental Education Program, Cocoa, Fla.	151,713
Interdisciplinary Environmental Education K–12, Ft. Lauderdale, Fla.	135,974
Environmental Sensitivity Project, Pensacola, Fla.	81,000
Environmental Laboratory, Arcadia, Fla.	50,000
Georgia:	
Student-Teacher Environmental Relationships Investigations.	199,127
Project Success Environment.	244,000
Illinois:	
Operation Survival Through Environmental Education, Grafton, Ill.	124,810
The Upper Mississippi River Eco-Center Thomson, Ill.	83,380
Indiana: Indianapolis Public Schools Resident Outdoor Education Program, Indianapolis, Ind.	10,000
Iowa:	
Project Eco, Ames, Iowa.	84,547
Handicapped Children's Nature Study Center.	17,923

Projects submitted by the National Advisory Council on Supplementary Centers and Services

Alabama: Reading Enrichment and Outdoor, Education, Tuscaloosa, Ala.	30,000
Alaska: The Kenai Environmental Education Program, Soldetna, Alaska	85,463
Arizona: Space Sciences In A Controlled Environment, Buckeye, Ariz.	25,000
California:	
Project MER (Marine Ecology Research), Pleasant Hill, Calif.	75,658
Humboldt County Environmental Education Project, Eureka, Calif.	105,145
Colorado: Cultural Relationship of Man to His Environment—Past, Present, Future, Delta, Colo.	14,400
Connecticut: Pratt Outdoor Center, New Milford, Conn.	2,500
District of Columbia: Model Comprehensive Program in Urban Environmental Education, Washington, D.C.	130,000
Louisiana: Environmental Education Curriculum Development, St. Martinville, La.	93,293
Maine:	
Maine Environmental Education Project, Yarmouth, Maine.	52,385
Maine Environmental Improvement, Yarmouth, Maine.	93,293
Maryland: Environment—A Basis for Curriculum, Oakland, Md.	185,629
Massachusetts:	
Project SCENIC, Auburn, Mass.	40,000
Project QUEST (Quality Urban Environment Studies Training), Brockton, Mass.	56,465
Project ECOS (Environmental Center for Our Schools), Springfield, Mass.	97,365
Discovery Through Outdoor Education, Mt. Clemens, Mich.	54,985
Minnesota:	
Education in the Natural Environment, Grand Rapids, Mich.	24,900
Eco-Experiences, Grand Marais, Minn.	90,000
Missouri: Environmental Ecological Education Program, Chesterfield, Mo.	91,000
Montana:	
Powell County Environmental Curriculum Center, Deer Lodge, Mont.	27,100
Environmental Education Curriculum Project, Hamilton, Mont.	20,936
Nevada: Verdi Outdoor Education Facility, Verdi, Nev.	36,000
New Jersey:	
Pollution Control Education Center, Union, N.J.	83,905
Implementation of the New Jersey State Master Plan for Environmental Education, Upper Montclair, N.J.	442,600

North Carolina:
- Environmental/Ecological Education, Morganton, N.C. — 75,542
- Environmental/Ecological Education, Green, N.C. — 75,542
- Environmental Science Study Curriculum, Washington, N.C. — 84,965

Ohio:
- Center for the Development of Environmental Curriculum, Willoughby, Ohio — 136,000
- Robinson Environmental Centers, Ohio — 125,000

Pennsylvania:
- Tayamentasachta, Greencastle, Pa. — 14,752
- Transdisciplinary Involvement Program, Pittsburgh, Pa. — 20,800
- Environmental Education Program, Pittsburgh, Pa. — 5,678
- Project LIFE (Living Instruction for Ecology), Waynesburg, Pa. — 27,000

South Carolina: Oceanographic Science Conceptual Schemes Project, Charleston, S.C. — 27,345

South Dakota:
- Inter-Lakes Environmental and Outdoor Education K–8, Chester, S. Dak. — 47,902
- Environmental Education K–12, Rapid City, S. Dak. — 42,400

Texas:
- Study of Ecology of Lower Rio Grande Valley, Harlingen, Tex. — 10,000
- Environmental Education Curriculum for Fort Worth Indian School District Outdoor Learning Center, Fort Worth, Tex. — 20,000

Vermont: Development of Outdoor Ecological Laboratory, Bellows Falls, Vt. — 15,000

Virginia:
- Craig County Conservation and Recreation Exploration (CARE), New Castle, Va. — 77,060
- Program for the Gifted, Hampton, Va. — 54,403

Washington:
- Weather Satellite Station, Kirkland, Wash. — 33,000
- Center for Ecological Studies, Mount Vernon, Wash. — 55,016
- A Model Marine Science Lab, Poulsbo, Wash. — 78,000
- Project Ecology (Environmental Career-Oriented Learning), Seattle, Wash. — 25,000

Wisconsin:
- ICE—Instruction, Curriculum, Environment, Green Bay, Wis. — 89,302
- K–12—Environmental Education Curriculum, Menomonie, Wis. — 25,000

Wyoming: Kemmerer Outdoor Lab, Kemmerer, Wyo. — 61,046

Guam: Environmental Education for Guam Schools, Agana, Guam. — 53,102

13. Cooperative Research Act:
- Educational Resources Information Center (ERIC), Ohio State University, Columbus, Ohio — 100,000
  The ERIC system is nationwide and attempts to provide ready access to results of exemplary programs, research and development efforts and related information that can be used in developing more effective education programs. The Center at Ohio State University deals with the area of environmental education as well as science and mathematics.
- Biological Sciences Curriculum Study, University of Colorado, Boulder, Colo. — 100,000
  A formative evaluation of an environmental module for general biology which provides techniques for student assessment of biological, physical, and behavioral aspects of environmental quality.
- Stanford Research Institute, Stanford, Calif. — 90,000
  Environmental education is an area of concern of the Education Policy Research Center at Stanford Research Institute. They have identified environmental pollution as a serious world problem that has impacted on societal values and which is influencing and can be influenced by education. Through analyses of alternative futures they have emphasized the significance to education of the environmental problems and solutions (alternatives) envisioned.

14. Higher Education Act, Title I—Community Service and Continuing Education Program:

University of Arkansas, Fayatteville, Ark., Title, Community Workshops for Elimination or Control of Environmental Problems ---------- 9,717

The project will alert citizens and officials in eight Arkansas cities to the legal means commonly available to protect or improve community physical environment. The project team will study enacted local legislation and will work with city officials, municipal legislators, interested citizens in workshop sessions to identify environmental improvement goals and appropriate legal administrative and educational means to their achievement.

University of Hartford, West Hartford, Conn., Title, Hartford Community Environmental Education Center------ 15,000

Three 1 week educational retreats will be held for community leaders at the University's Great Mt. Forest Camp in northwestern Connecticut. Follow-up workshops will be held on Saturdays in the Fall. The purpose is to promote better communication among those involved in dealing with environmental problems through improving their conceptual framework for decisionmaking.

University of Georgia, Athens, Ga., Title, In Pursuit of Clean Water ---------- 7,000

The purpose of the program is to bring about an environmental consciousness among local and State leaders who are responsible for making decisions concerning the environment, to provide the leadership and concerned citizens the opportunity to share in seeking solutions to water problems. Six workshops on Water Quality and Resources will be conducted in six locations. Participants will include concerned citizens, industry and business leaders, local and State government personnel.

University of Maine, Orono, Maine, Title, Solid Waste Disposal Alternatives for Miane Communities---------- 7,790

The purpose of the project is to acquaint private citizens and municipal officials with the solid waste management problems and with acceptable alternatives for solid waste management and disposal. A series of 1-day public meetings will be held at four locations in the State. The proceedings of these meetings will be published and disseminated. During the same week that the seminars will be held, three half-hour TV programs dealing with solid waste disposal will be prepared for later airing on the Maine Educational Television Network.

University of Massachusetts, Amherst, Mass., Title, The Green River Project---------- 11,000

The project will use university students to train citizens in the Greenfield area to do basic water sampling needed to monitor the Green River. Five lecture courses for 75 community members will be held on the environmental aspects of the area. Sixteen participants will be further trained to do basic monitoring.

Northeast Mississippi Junior College, Boonville, Miss., Title, Enrivonmental Education Program for Community Leaders ---------- 12,068

The university will hold five day-long seminars throughout the northeast section of the State to give a brief coverage of environmental problems and to promote environmental control practices. Two conferences will also be held for area leaders to meet and discuss mutual environmental problems. Four week-long workshops will be conducted on campus for Northeast students, community leaders and other interested area adults to provide indepth study of specific local problems.

Dartmouth College, Hanover, N.H., Title, Education for Implementation of Upper Valley Land Protection---------- 12,000

The purpose of the project is to educate land owners and community officials along the Connecticut river toward understanding how they can protect their land from inappropriate development. Seminars will be held on both a regional and town basis.

University of New Hampshire, Durham, N.H., Title, Environmental Field Day---------- 3,068

A two-day workshop/seminar will be held to educate a broad section of New Hampshire people about natural resource management at the community level; to provide information that will encourage examination of specific community environmental problems; and to provide a basis for developing community resources management policies and procedures.

North Carolina State University, Raleigh, N.C., Title, Environmental Education Program for N.C---------- 11,268

North Carolina State University will conduct a series of environmental education programs directly responsive to the previously stated needs of environmental activists, elected officials regulatory board members, developers, financiers, and citizens at large. The programs will include issue-oriented workshops, publication of informative articles in the N.C.E.E. Newsletter, and implementation of an Environmental Speakers' Bureau.

Shaw University, Raleigh, N.C., Title, Environmental Education in Raleigh, North Carolina Area---------- 9,404

Shaw University will conduct a continuing education program to communicate to the adult population of the Raleigh area facts of environmental pollution and protection. Available scientific and technical knowledge will be disseminated to private citizens groups, civic, governmental, educational and religious organizations through special seminars, workshops, night classes, radio-television broadcasts etc.

Claman State College, Claman, Pa., Title, Institute on Human Ecology of Northwestern Pennsylvania---------- 46,306

Claman State College will conduct multi-disciplinary educational programs for key community agencies and organizations focusing on the processes of solving key environmental problems (both natural and manmade) at the local level.

Indiana University of Pennsylvania, Indiana, Pa., Title, Institute on Human Ecology of Southwestern Pennsylvania-- 40,000

Four colleges in the area will work together on conducting workshops designed to further develop awareness and knowledge about the environment among community leaders. They will also conduct an environmental action program which will serve as a model of interaction between area colleges and communiy groups. A Speakers' Bureau will be organized at each college.

Parkersburg Community College, Parkersburg, W. Va., Title, Environment: Economic vs. Social Concern---------- 5,224

The program is designed to awaken the public interest to the social and economic implications of environmental pollution through education which will foster informed involvement and decision-making pertinent to environmental protection. The program will consist of two lecture series for interested citizens and a two-week seminar for high school and college instructors. The latter will address methods of integrating ecological concerns into on-going classroom activities.

A variety of activities similar to those described above are being conducted at the institutions listed below. The projects are being supported for a second year with HEA Title I State grant funds.

University of Alabama, University, Ala., Title, Education Services for Government Employees working with pollution problems, water treatment, and other concerns	11,610
Arizona State University, Tempe, Ariz., Title, Community Noise Control Program	3,439
Berry College, Mount Berry, Ga., Title, Community Leadership in the Seventies: Environmental Consciousness of Adults	4,500
University of Missouri, Kansas City, Mo., Title, An Environmental Pollution Control, Information Center	6,994
University of Nevada, Reno, Nev., Title, Environmental Studies Program	11,809
University of Nevada, Las Vegas, Nev., Title, Environmental Studies Program	13,400
Dartmouth College, Hanover, N.H., Title, Contemporary Regional and Social Problems, Including Pollution, Drugs, Poverty	10,500
University of New Hampshire, Durham, N.H., Title, Resource Newsletter—Managing Our Resource Environment	10,500
University of New Mexico, Albuquerque, N. Mex., Title, Conference on the Continuous Critical Problems of Albuquerque, including Impact of the Environment	15,000
New Mexico State University, Las Cruces, N. Mex., Title, New Mexico Environmental Institute	15,000
Appalachian State University, Boone, N.C., Title, Zoning Education in Northwestern North Carolina	33,000
Westchester State College, West Chester, Pa., Title, The Importance of and Danger to the Ecological Cycle of Pennsylvania	59,603
Clarion State College, Clarion, Pa., Title, Institute on Human Ecology of Northwestern Pennsylvania—Project NOW	46,306
St. Edward's University, Austin, Tex., Title, Environmental Seminars: The Ecological Basis of Urban Problems in Texas	9,000
Sweet Briar College, Sweet Briar, Va., Title, Environmental Education for Community Leaders	21,000
Western Washington State College, Bellingham, Wash., Title, The Future of Puget Sound	15,000
West Virginia Institute of Technology, Montgomery, W. Va., Title, An Action Plan for Dealing with Environmental Pollution and Other Community Problems	8,625

Environmental education-related projects

1. Manpower Development and Training Act, MDTA. Environmental manpower training projects, including training of air, water, environmental, and solid waste technicians and aides	1,670,720
College of Applied Technology, Agana, Guam	
LewisClark State College, Lewiston, Idaho	
Madisonville Area Vocational School, Madisonville, Ky.	
Guam Vocational School, Guam	
National Contracts—Environmental Protection Agency, Washington, D.C. and Arlington, Va.	
2. Higher Education Act, Title I Community Service and Continuing Education Programs:	
College of the Virgin Islands, St. Thomas, U.S. Virgin Islands, Title: A Study of Present and Projected Personnel Needs in the Maine and Environmental Sciences	5,000
The purpose of the project is to develop interest in the maine and environmental resources of the Virgin Islands through an assessment of local manpower needs of government agencies, educational institutions and the private sector.	

3. Higher Education Act, Title III—Strengthening Developing Institutions. Projects concerned with the development of environmental-related curriculum components by 2 and 4-year higher education institutions.	
Tuskegee Institute (consortium of black architectural schools) Alabama	75, 000
Florida Keys Community College, Florida	50, 000
Gainesville Junior College, Georgia	30, 000
Union College, Kentucky	30, 000
Alleghany Community College, Maryland	50, 000
University of Albuquerque, New Mexico	100, 000
Durham College, North Carolina	50, 000
North Carolina A. & T. (consortium of black architectural schools) North Carolina	37, 000
Pembroke State University North Carolina	40, 000
College of the Sacred Heart, Puerto Rico	10, 000
Baptist College at Charleston, S.C.	50, 000
Knoxville College, Tenn.	50, 000
Maryville College, Tennessee	27, 000
Tennessee State University (consortium, of black architectural schools), Tennessee	75, 000
Prairie View A & M (consortium of black architectural schools), Texas	40, 000
Southern Utah State College, Utah	54, 000
Hampton Institute (consortium of black architectural schools), Virginia	67, 000
Morris Harvey College, West Virginia	27, 000
4. Cooperative Research Act, Career Education. Support for planning and concept develop for school-based (K–14) and out-of-school adult environmental education and training curriculum model components.	
Center for Vocational and Technical Education, Ohio State University, Columbus, Ohio	370, 000
Education Development Center, Newton, Mass.	28, 000
Research for Better Schools Philadelphia, Pa.	25, 000
Northwest Regional Education Laboratory, Portland, Oreg.	10, 000
Appalachia Educational Laboratory, Charleston, W. Va.	20, 000
Far West Laboratory for Education R. & D., Berkeley, Calif.	25, 000
Grand total	11, 403, 523

Mr. BRADEMAS. Mr. Landgrebe.

Mr. LANDGREBE. I appreciate your appearance here today and I will try to stay within the 5-minute rule. To do so, I will have to ask you some questions and most, I think, I can pose so as you can answer yes or no.

I will say, I regret to some extent my comments before did not totally coincide with the questioner's line of thinking that the chairman was pursuing.

On the other hand, I think it is very important for us in America today to realize and recognize the amount of money we are channeling for programs to clean up our environment. I was in a big scientific center in Russia where they have 2,400 scientists. The chairman of the committee was there. We asked the chief scientists, "How much of your budget are you spending on environmental problems"?

He leaned back in his chair and roared with laughter and said, "Not one penny." We said, "Don't you people behind the Iron Curtain realize that the environment has to be cleaned up?"

He said, "We will start when we get the word from Moscow."

At that time they were spending no money on the environment.

Don't you agree that President Nixon is honestly attempting to restore fiscal responsibility, fiscal sanity to this country while at the same time maintaining security of this Nation?

Dr. MARLAND. Yes.

Mr. LANDGREBE. Do you know whether we are going to have a bill to increase the debt limit again this year?

Dr. MARLAND. I do not know.

Mr. LANDGREBE. I can answer that, yes, we will have.

I have asked and I have presented the information about EPA so there is no need to pursue that further.

Do you feel that the only way that we can approach this matter of our ecology really successfully would be through programs that are funded through HEW rather than other agencies and conceivably other agencies of this Government?

Dr. MARLAND. This takes a little more than a yes or no. I will be brief.

Mr. LANDGREBE. This is a final question so you can take up to the 5-minute limit to answer.

Dr. MARLAND. As a school administrator, I am disappointed that that many programs are necessarily set aside at this time of fiscal stringency in the Federal Government. Environmental education is certainly one of them that I dread to be set aside when it has a good track record. I am confident, however, that the consolidation of activities, the removal of the many, many categorical programs administered by the Office of Education, is a wise move. I have held that from the day I came to Washington. I think it is a matter of sustaining technical assistance and drive from the Office of Education, without necessarily the sums of money or grants, but to insure that this activity is carried on with vigor and commitment.

Mr. LANDGREBE. I have no further questions.

Mr. BRADEMAS. Mr. Hansen.

Mr. HANSEN. Thank you, Mr. Chairman.

Let me welcome you, Dr. Marland, back to this subcommittee where we are always pleased to see you but I can appreciate the difficulty of the circumstances under which you appear today. You have, of course, on this side of the table two of the original authors of the Environmental Education Act and if we demonstrate greater than average sensitivity to its implementation and some of the problems along the way, you will understand.

I might say I am more disappointed than surprised at the position of the administration with respect to the bill extending the act. On perhaps a brighter note and to inject a positive note into the discussion, I would like to acknowledge what I have always been convinced to be your personal support for the objectives of this legislation and for the strengthening of environmental education generally. I have felt that throughout and I still am convinced that this reflects your own personal commitment and position.

Dr. MARLAND. Thank you. It does.

Mr. HANSEN. I would also note that during the last few months in my conversations and correspondence with many who are involved in implementing the act through some of the projects that are funded, I have received a number of very complimentary remarks concerning the assistance rendered by Dr. Bogan in the exercise of his leadership in this area. I think that should be noted and should be on the record.

Dr. MARLAND. We are pleased to have it, Mr. Hansen.

Mr. Hansen. Just to express my own view on this legislation and on the administration position, I would acknowledge and probably find I do agree with you in many respects as far as the basic objectives and direction of the so-called Better Schools Act is concerned. We do need to take stock of where we are going and what we have done from time to time and we have to admit frankly sometimes that programs initiated as experiments did not work or did not work very well. In many cases we can take innovative efforts and blend them into ongoing programs. If we fail to face up to that painful task, it is always painful when you make changes, if we fail to do that, then I can see problems as far as the effectiveness as far as the Federal effort in education.

Having said that, I would identify—maybe this just reflects part of my personal feelings about this bill, having been deeply involved in its genesis, but I would have to identify this one of the exceptions. I would have to say this is one of the unique areas, for a period, at least, that should be the subject of a categorical program. In this case, we are attempting to stimulate new approaches, new ideas, new techniques. We are attempting to develop models and we are attempting to go well beyond the bounds of the formal educational institutions that involve other groups, individuals and communities. For that reason I still feel very strongly that this should continue to be a categorical program. I can foresee the time as its objectives are achieved and this cannot be done without strong support from both the Congress and administration. I can foresee a time when this program, too, or much of what is involved in it, can become part of a consolidation that is anticipated in the Better Schools Act. But for the next few years, I feel very strongly that it should continue as a separate program. It should have support from the administration commensurate with the support it has always had from the Congress.

Now, we can go back and rehash the past. I do not know that it will serve a great deal of purpose at this point. I am trying to look into the future and I am somewhat apprehensive as to what will happen to the program. The administration has taken its position and I respect its reasons for doing so. I think it is fair to say this bill is going to pass; I would hope it would be signed. The passage I would guess will be pretty close to the passage of the original act, which I believe, was unanimous in both Houses. I am persuaded that strong support still exists. We will pass the bill and this represents Congress judgment on how these programs should be carried on. I am concerned about what happens then. If it is passed and signed into law, we have an impasse between the Congress and the administration. If, somehow we do not in a spirit of good will, sit down and try to compromise the differences and come up with a plan that reflects that compromise and that willingness to adjust and make concessions, then the whole cause of environmental education is going to suffer severely.

Would you care to comment on that?

Dr. Marland. I would be pleased to.

Let me say this very earnestly to you and the chairman. If, in deed, this law does pass and is signed and funds are available for its implementation, it will be administered with the utmost vigor and enthusiasm by the Office of Education and by the Division of Education to the extent it will come under the general purview of that office. Given a law, you may be sure that we will execute it with the utmost

integrity we can muster. I say that, risking the chairman's concern that he does not always believe what we say.

Mr. HANSEN. Thank you. I yield back the balance of my time.

Mr. BRADEMAS. I appreciate, Mr. Hansen, the response of Secretary Marland to your question.

Mr. Peyser?

Mr. PEYSER. Thank you, Mr. Chairman.

Dr. Marland, I am delighted you are here this morning. I guess I would like to start on really a clarification for me, sort of a case of where is the $2 million?

As you know, Dr. Marland, I had written a letter that our chairman which was referred to Secretary Weinberger inquiring about this $2 million that got somehow delayed when, I gather from your testimony, after the Office of Education acted on it and it went into the Grants Division. How was that?

Dr. MARLAND. I will clarify that. The system, longstanding I understand not solely in the Office of Education but in other Federal agencies as well, has been that as contracts and grants are executed by program officers, they then go to the grants and contracts units within that agency. This was true in our case.

Mr. PEYSER. This is within the Office of Education?

Dr. MARLAND. That is correct.

At that time, executing a considerable change in practice, the contracts and grants officer, the principal officer, acting upon his own warranted integrity and responsibilities said we must no longer execute grants and contracts in the technical sense after June 30. This was a change. The change occurred very late. The integrity and responsibility of the grants and contract officer had to be respected.

I asked for an inqury from our auditors at that time to determine where the truth lay and found indeed the grants and contracts officer's position was sustained under the strict interpretation of the law, notwithstanding other practices of a similar kind.

Mr. PEYSER. I appreciate that answer.

In the letter of May 4 I received (from Secretary Weinberger) in response to my letter he said, "Your letter mentions technical problems which affect 1973 funding for environmental education. The problems consist of improper recording of the 1972 contracts and grants after closing of the fiscal year."

I take it that is what you are referring to.

"Included in this is $2,220,000 of environmental educational funds. Because of the backdating, $2,220,000 of environmental funds were unspent."

We are all in agreement on that point.

"This resulted solely from workload processing problems in the Office of Education and does not represent any effort on the part of the administration to cut back the program. In 1973"—I assume we are talking here this year of 1973—"The entire $3,180,000 budgeted for environmental education will be spent.

"After the adjustment for properly recording the backdated grant awards as 1973 obligations, $1,104,000 remains to fund previously unapproved projects."

This is from the Secretary, Mr. Weinberger. It is my understanding from this letter that in effect the $2,220,000 that was budgeted and

was appropriated will never find its way into the environmental education program; is that the fact?

Dr. MARLAND. As I understand the Federal process of fiscal accounting, since the $2.2 million was never drawn, it remains in the Treasury.

Mr. PEYSER. So, in effect, that money will never be expended and the $3,180,000 that is talked of being expended in 1973 is in reality the money that was budgeted for that fiscal year and through what I guess we would have to say was an administrative error in the Department of Education or administrative judgment, $2 million was lost to the environmental education program?

Dr. MARLAND. Yes, sir.

Mr. PEYSER. There is no question in my mind that you share my concern and this committee's concern that the program should suffer and, obviously, when two-thirds of the money allocated is not spent, the program has got to suffer. It meant that a good many, over 100 grants, were not given that were presumed to have been given.

It means in this fiscal year the same thing, we will never catch that $2 million unless we can find a way between now and June 30 of effectively appealing the backdating of that $2 million. This is not new money, it has nothing ot do with any budgetary control or fiscal responsibility. This is merely money that, in effect, will return to the general Treasury that has been appropriated.

My question is, is there any action that you see that could be taken on either a reappeal by the Office of Education, or any congressional responsibility for that from this committee or others that could possibly bring about the reconsidering of this $2 million before the end of this fiscal year? Without this acting, it is gone forever and this has nothing to do with increased spending.

Is there anything any action that can be taken by the Office of Education on this?

Dr. MARLAND. It is a fair question. Let me see if I can get some legal counsel on answering it. It does become a legal matter and I want to be careful in my reply.

I will ask, Mr. Peyser, that Mr. Alford who is closer to the regulatory provisions, be allowed to answer that question now.

Let me introduce the question in the context I posed it to Mr. Alford. Without our advocating a different position and without standing before you appearing to be contrary to the administration's position, you have asked about technical procedures open to Congress. It is in that context I ask Mr. Alford to reply.

Mr. ALFORD. I think we would comment here that probably the committee is fully aware of the devices or techniques that can be used to recover or reauthorize money in situations like this but what it involves, of course, this year—it amounts to an increase in the amount of money that would be required for fiscal 1973.

Mr. PEYSER. Just to be sure——

Mr. ALFORD. The loss is in 1972 money.

Mr. PEYSER. Doesn't 1972 money end June 15, 1973, or June 30?

Mr. ALFORD. No; June 30, 1972, it was 1972 money lost. The $2 million was lost from the 1972 money. So, in effect, what you would be calling for would be the addition of $2 million to fiscal 1973 money.

Under the current fiscal situation, the Secretary's determination has been that we will not add money in fiscal year 1973.

Mr. PEYSER. I understand what you are saying. What you are saying is that in fiscal 1972, even though you authorized the expenditure in effect by the approval of the grants in the Office of Education, then it went on to the contracts division, and so forth, the $2 million, due to the workload, was not approved until August. Those approvals were given on the assumption, as had been the past operation, that this $2 million, even though it was in August of 1972, that would be utilizing money from fiscal 1972, is not that correct? Was that the assumption?

Mr. ALFORD. Yes; if the backdating had been considered legal, that would have been using 1972 money.

Mr. PEYSER. Have you ever had any situations before of backdating these grants prior to this time?

Mr. ALFORD. I think it is probably relatively common knowledge there has been backdating before.

Mr. PEYSER. I think this has been a very normal procedure that has gone through in the past.

What I am asking is, isn't there still an area of logical appeal to this decision without additional funding because we have given up that $2 million and now we say that we are going to be allocating the $3 million next year but of the $3 million, it is $2 million of the 1972 money.

It seems to me something is out of whack here because somewhere we dropped $2 million in the crack and it is gone and never went to Environmental Education.

Mr. ALFORD. The point is that despite whatever may have been done in our agency, or other agencies, in the past with regard to backdating, the fact is it is illegal.

Mr. PEYSER. Can we assume, then, that from now on in any department there will be then no further backdating?

Mr. ALFORD. That is our assumption. There will be no further backdating in the Office of Education or HEW.

When this case came to light, we went through your appeals process internally. It was discussed at great length as to whether backdating was legal or illegal. The determination was made that it was illegal, therefore the funds would have to be reverted or not be spent. They are fiscal 1972 funds, the $2 million. In order to ease the program, since we had gone through the process with the grantees and made the awards as far as they were concerned, it was felt only fair that we use fiscal 1973 money, since the grants were actually made in 1973 to validate those awards. But it does, in effect, mean we are left with only $1 million plus for fiscal year 1973 awards.

Mr. PEYSER. You lost the $2 million plus?

Mr. ALFORD. Yes.

Mr. PEYSER. In this year, dealing with fiscal 1973 which ends the end of June——

Mr. ALFORD. June 30.

Mr. PEYSER. Under the Environmental Education Act, how much money has not yet been actually approved, contracted and let out as of right now?

Mr. BOGAN. How much money has not been expended?

Mr. PEYSER. Out of the $3,100,000 whatever the figure was?

Mr. BOGAN. The best figure I have is $3.2 has been reprogramed to cover that 1972 figure. We have spent $3 million. There is only $200,000 remaining.

The commitment has been made, the staff work has been done, materials are now in transit from grants and contracts to financing. The last report I have is that of the moneys available, the $3 million has been committed, applicants have been notified and I understand congressional notification took place prior to notification of the applicant.

Mr. PEYSER. So, in effect, there is just the $200,000 left? Has all the other fiscal 1973 $3 million, everything but $200,000 has been contracted and approved?

Mr. BOGAN. Yes; if I can make clear, it is our understanding in the program that is committed, we are waiting for action in the contracts and finance office.

Dr. MARLAND. I have had assurances over the past day that the progress of our grants and contracts will satisfy the fiscal year termination this year in virtually all programs and certainly the programs we are discussing today.

Mr. BRADEMAS. If the gentleman will yield, these events will not be repeated with respect to fiscal 1973 moneys?

Mr. BOGAN. That is correct.

Mr. PEYSER. I think at least we feel assured it won't happen again, however, I still think we have, if you will, done dirt to the environmental program by loss of that original money but evidently no action can be taken at this time.

Mr. BOGAN. I understand, Mr. Peyser. The subject remains under correspondence between the Appropriations Committee of the House and the Secretary.

Mr. PEYSER. I would hope, Mr. Chairman, there may be a possibility of regaining that money. I would do whatever I could for it.

One other thing, when you speak of the schools receiving funds under the Better Schools Act, the thing that disturbs me is, if they choose to do so, few States are going to divert money that they need in the established educational problems and programs to put money into this type of program. That is why I think it is so necessary that the program stand on its own feet. I also think, just to keep it very current, that in view of the energy crisis we are facing, I view environmental education as a real step toward helping us in this energy crisis for the future generations.

I think what they can learn through the programs we have been talking about is many ways of how to conserve energy, how to use it better. I think there are so many arguments for the continuation of this program, and I am very hopeful we will get this enacted by both Houses and that the President will sign this bill with HEW approval.

Mr. BOGAN. Thank you, Mr. Chairman.

Mr. BRADEMAS. I just want to express my own appreciation to Mr. Peyser for the work he has done on this legislation, particularly with respect to the question of seeing to it that the moneys appropriated by Congress for the program are properly expended.

It would really appear that the inventive minds of somebody down there may have come upon a new form of impounding with the way in which you have approached this back-dating problem. I just want to observe that what has troubled me as much as anything else about the operation of this program by the Department, Mr. Secretary, has been we have had to spend so much time and energy simply trying to get you to obey the law.

Now, you have heard me say in here over the last several years, in respect to this legislation, that you were violating the law. You will recall I made that charge because of the failure to——

Dr. MARLAND. Appoint an advisory council.

Mr. BRADEMAS. Yes, mandated by the statute.

Dr. MARLAND. Publish regulations on time.

Mr. BRADEMAS. Yes.

Dr. MARLAND. We did establish the Office of Environmental Education.

Mr. BRADEMAS. I realize that. It took a little time. Of course, you have obviously fouled it all up when it comes to spending the money. You know it is almost as if this administration does the Congress, and the people of the country, a favor if you decide to obey the law.

This is only from my point of view, but it is not too much to say that an administration which has approached the implementation of this legislation with as profound a lack of respect for the intent of the Congress of the United States and the law, could have anticipated the problems it is now experiencing with respect to the events related to the Watergate being considered in the other body.

Dr. MARLAND. Let me repeat, as I mentioned to Mr. Hansen, if, indeed, this action you are bringing before the administration does become law and funds are made available for its implementation, I will say again that it will have my personal attention to assure its orderly administration.

Mr. BRADEMAS. I appreciate that, Mr. Secretary, but I will have to say to you again that I have heard that kind of statement out of you before in front of this committee. And I will tell you very frankly I do not really care what you tell me any more. I will not believe it until I see that you do it. That does not mean I am not fond of you but you have heard me say before this has been the most lawless administration in my experience in the Congress.

I said that even before the Watergate broke. I know one reason I said it was because of the operation of this administration with respect to meeting the intent of the Congress of the United States in implementing this modest program of environmental education. We have to recover some respect for law and order in this country and a good deal could begin in the Department of HEW.

Dr. MARLAND. Thank you.

Mr. BRADEMAS. We will be glad to hear from our distinguished colleague, Congressman Eckhardt of Texas.

STATEMENT OF BOB ECKHARDT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. BRADEMAS. We are pleased to have you with us. Go right ahead.

Mr. ECKHARDT. Thank you, Mr. Chairman.

Mr. BRADEMAS. I am sure you don't have this type of difficulty with respect to legislation that comes before the committee on which you serve.

Mr. ECKHARDT. We do, Mr. Chairman, on some occasions.

We, in the coastal and industrial area of Texas had to learn the hard way the need for environmental education. We saw many of our nonrenewable resources disappear into the maw of commercial shell dredgers. We saw our clean, productive bay waters polluted and de-

stroyed by municipal and industrial pollution. We began to note the stinging, burning sensation in our eyes in what was once clean, breathable air.

It was only after these things happened that the public in my area became concerned and realized that it must become alarmed and demand that good environmental practices be put into effect. It became apparent then that it was necessary to bring about a vast educational program to inform the public at large as to the need for environmental reform.

While I had for a good while before been active in direct environmental controls, my first efforts at promoting environmental education came in the autumn of 1968 when my office cooperated with Lee College, in Baytown, Tex., to sponsor the Southwestern Symposium on Conservation Education. We were able to put together what I consider to be a first-rate program, with knowledgeable speakers from the National and State levels, with program participants and attendees from all governmental levels and from nationally acclaimed citizen groups. I shall not go into detail on data which came out of that symposium but would like to provide your subcommittee with a copy of the proceedings.

I would ask if this might be put in your files of the committee for your consideration.

Mr. BRADEMAS. With pleasure, Mr. Eckhardt.

Mr. ECKHARDT. As I pointed out in my welcome to the delegates, had our predecessors in the Congress and in the State legislature had the foresight to determine the need for such conferences, perhaps today we would not have had a shell dredging problem; our air and water would have been cleaner; our hills would not have been denuded; we would have had adequate parks and playgrounds; and our children of today and tomorrow would have been assured of a fuller, richer life than they may now expect.

I would like to discuss further the roles that other groups, activist and educational, have played in dissemination of environmental education in the Texas gulf coast area and the vital need for extension of the Office of Environmental Education. Within a period of 3 weeks, I have been asked by three groups to support their application for grants from the Office of Environmental Education. All are worthy programs and vitally important ones. I would like to discuss each one briefly.

One application is from Consortium C, made up of Texas A. & M. University, Texas Southern University, Sam Houston State University, Lamar Technical University, and Prairie View A. & M. University, for funds to implement a program to train 240 classroom teachers in the area of environmental education.

This is one of the facets of the symposium I mentioned above, and is possibly a result of that symposium. I would also like to point out that two of the universities involved are institutions primarily concerned with education of minorities.

Studies in Chicago, for instance, indicate that minorities are more seriously affected by air pollution than other groups, due to their being confined to ghettos adjacent to industrial areas and their economic inability to provide air-conditioned homes, autos, and places of employment.

Another applicant for a grant from this office is the Earth Awareness Foundation, which seeks funds to continue its environmental education activities among the young people.

The foundation founded the Earth I Care Clubs, which have primarily been active in New Jersey and Texas. Goals of these clubs are to acquaint youngsters with the need for environmental quality and to develop environmental projects which they can carry out themselves. The Earth I Care Clubs at Clear Lake High School and Clear Creek High School last year carried out the Clear Creek basin water quality study, which won for their members the first Special Citation of Merit from President Nixon. These clubs are continuing that study this year. As of today, there are more than 50 clubs operating in the Nation with more than 4,000 participating students involved. This organization has been particularly active in the Texas Coastal Zone, one of the most important areas in the world for shrimp production.

The third group I would like to mention is one with which I am perhaps most familiar. I refer to the San Jacinto Lung Association, known until recently as the San Jacinto TB and Respiratory Disease Association, which represents 12 counties in southeast Texas.

For a number of years, I was a member of the association's air conservation committee and for the past 2 years have been represented on that committee by my environmental assistant. I know firsthand of the excellent job that the committee has done in nudging local government bodies to put into effect good air pollution control programs. Equally important has been the activities of the association in promoting public interest in air pollution control programs and encouraging public participation in hearings concerning such programs. One of its first major activities was the Community Air Pollution Education Conference on December 5, 1969, attended by several hundred persons representing approximately 40 organizations.

This was the kickoff in an attempt to make the public aware of hearings by the Texas Air Control Board to set ambient air quality standards for the Houston-Galveston Air Quality Region. On August 28, 1970, the Texas Air Control Board held its public hearing on the matter, and several hundred persons overflowed the hearing hall.

This tremendous turnout was primarily the result of the activities of this association.

As you perhaps know, the National Air Conservation Commission of the National Tuberculosis and Respiratory Disease Association, along with other groups such as the League of Women Voters, was responsible for similar support of air pollution programs throughout the Nation. These are only a few of the public-spirited activities of the association. Their efforts are too numerous to enumerate here, but I am sure that it is through the activities of the association and other activist groups in Texas that adequate air quality standards have been adopted and are being implemented.

In this presentation, I have purposely touched upon only three areas of environmental education which I feel to be most important: formal education as exemplified by Consortium C; field training for youngsters, as carried out by Earth Awareness Foundation; and the need for educating and informing the general public, as the San Jacinto Lung Association has done. In many instances, particularly on the part of the Lung Association, it has spent many thousands of dol-

lars of its own funds in its endeavors. But dollars are short for such organizations, and they need all the help they can get to carry out their programs.

I earnestly recommend to this subcommittee that it approve H.R. 3927, which would extend the life of the Office of Environmental Education and would increase its funding to $10 million for the first year, $20 million for the second year, and $50 million for the third year. I believe this to be the absolute minimum which should be authorized for such an invaluable program.

Mr. Chairman, I should like to add, more or less responsive to some of the remarks that Mr. Peyser made in the colloquy here that there is another, very strong reason for this kind of public education at this time.

I happen to sit on the Committee of Interstate and Foreign Commerce which deals with a great number of the regulatory agencies that have to do with various aspects of environmental protection.

In practically every one of the bills that we have recently passed or revised by amendment, and in practically every one of those before us now we have afforded, and I think wisely so, an opportunity for public participation. If that public participation is to be meaningful, the public must be well informed. If it is to be well informed, I know of no better way to set the groundwork for that information than through your bill.

I think it has already accomplished a great deal in that direction but it would be in my opinion extremely unwise not to carry that program forward.

I say that not only from the standpoint of the public—though I think that is the main concern—but also it is extremely important to industry that public participation not be the kind of random, just general good and welfare that might be represented by an uninformed public but that it be a participation of a public that knows precisely what the problem is.

I want, just for the record, to mention several of these bills in which public participation is granted to a greater extent than ever granted before in regulatory provisions.

Of course, it is well known that the Clean Air Act contains such provisions. The last time we passed the Product Safety Act which has to do with environmental questions because it has to do with products that might have a direct effect on the purchaser by disseminating something that might be poisonous or injurious.

Much more applicable to this question is the bill we are now considering before the Committee on Commerce and Finance of Interstate and Foreign Commerce. That is the Toxic Substances Act which is incidentally strongly supported by the administration. It is a bill that fills in a gap where the danger is not to the immediate consumer, as in the Product Safety Act, and is not a danger directly from the manufacturer to the environment, as in the case of the Clean Air Act, but is a danger through an intermediary, a producer of a product like a pesticide who sells it to users who are not themselves endangered but in their use of the product the atmosphere is endangered or, for instance, a chemical reagent used by many manufacturers which might pollute with, say, mercury, the streams.

In that act, we have an opportunity for public participation.

Also we considered last term in a rather abortive attempt—I understand we will consider in our committee this year the Powerplant Siting Act which is, of course, directly in the area Mr. Peyser pointed out in his colloquy. Certainly the public has strong need to be informed in these areas.

I feel if there ever was a time when there is a need to redouble our efforts with respect to public education in these areas, it is now.

I appreciate this opportunity and I think it is always helpful if we can have a little colloquy between committees concerned with something of the same problem.

Mr. BRADEMAS. Thank you very much, Mr. Eckhardt, for your most illuminating statement. I am struck, first, by the range of activities that are being undertaken in environmental education in your own home State and area.

You have indicated by the examples that you have cited the need for a variety of kinds of programs of environmental education.

Second, I am grateful for the linkage that you have suggested between the kinds of programs considered in the committee, on which you serve with such distinction, and the environmental education program.

I think, as you and Mr. Peyser have suggested, that given the new awareness burgeoning in the country about the energy crisis, it is important that we make more effort in environmental education. I thank you for your thinking.

Mr. ECKHARDT. I might say I was impressed by some of the colloquy by Mr. Hansen and yourself concerning the question of whether or not purely educational moneys would reach these questions.

I think the examples I have given indicate it would not. In most of the examples, except the first with respect to the consortium, the activities more is a question of public education than one of formal education

Mr. BRADEMAS. Thank you.

Mr. Peyser.

Mr. PEYSER. Thank you, Mr. Chairman.

I, too, want to welcome our colleague here and thank him for the contribution he made in his testimony. I have a question now concerning the long association you have mentioned in their out-reach program. In other words, how broad an area, or how many people do you think they reach presently with their program. I will try to estimate this on the basis they have made application for moneys under the Environmental Education Act.

Do you have any idea of the type of outreach they have? This is certainly a key area.

Mr. ECKHARDT. They operate in 23 counties and they have committees in each of these counties dealing with environmental questions, largely, of course, with air pollution.

As I mentioned, they have the type of thing like the conference of December 5, 1969, with many other organizations participating and literally hundreds of people in attendance at those organizations.

I think one important thing is that their activity tends to proliferate any funds which may be given to them. They have other purposes, they have other resources for funds. And they have an audience which would be much larger than the audience of a group concerned solely with environmental matters.

Mr. PEYSER. Do you think that with proper funding an organization such as this could reach into youth groups as well?

Mr. ECKHARDT. Yes; I think there is no question about it. You know, one of the groups I mentioned is substantially devoted, well, primarily devoted to youth groups. The Earth I Care Group operating under the Earth Awareness Foundation. There is interplay between these groups.

Mr. PEYSER. I would think this is the type of thing and one of the real reasons for the kind of funding we are talking about. The opportunity of tapping organizations such as you have mentioned to spread the word on environmental education whether it be air pollution aspect or numerous other aspects of the environment we should be addressing ourselves to.

I am once again, very pleased to have the testimony and particularly the examples you cited because I think it is the type of thing we are speaking of in this act which I am very convinced we are going to enact.

Thank you for your testimony.

Mr. ECKHARDT. Thank you.

Mr. BRADEMAS. Thank you, Mr. Eckhardt.

The subcommittee is adjourned.

[Whereupon, at 11:55 a.m. the subcommittee adjourned subject to call.]

[The following articles were submitted for the record.]

THE ALLIANCE FOR ENVIRONMENTAL EDUCATION,
UNIVERSITY OF WISCONSIN-GREEN BAY.
Green Bay, Wis., May 23, 1973.

HON. JOHN BRADEMAS,
Select Subcommittee on Education,
Washington, D.C.

DEAR CONGRESSMAN BRADEMAS: As Acting Chairman of the Alliance for Environmental Education, Inc., I am responding to your request of May 7, 1973 for written testimony on the extension of the Environmental Education Act. The Alliance was recently formed by private non-profit youth, education, environmental and conservation organizations with a commitment to environmental education. Twenty organizations with total membership in excess of 11,300,000 persons presently constitute the Alliance.

The organizations participating in the Alliance are the American Forest Institute, the American Nature Study Society, the American Society for Ecological Education, Inc., the Association for Environmental and Outdoor Education, the Boy Scouts of America, the Conservation Education Association, the Conservation Foundation, Foresta Institute, Girl Scouts of the United States of America, the Izaak Walton League of America, the League of Women Voters of the United States, the National Association for Public Continuing and Adult Education, the National Audubon Society, the National Council for Geographic Education, the National Science Teachers Association, the National Parks and Conservation Association, the National Wildlife Federation, the Soil Conservation Society of America, the Western Regional Environmental Education Council and the Wildlife Management Institute.

The Alliance Board of Directors, consisting of one representative from each organization, held its first annual meeting May 9-11, 1973 at Airlie House, Airlie, Virginia. The Alliance elected as Chairman of the Board, Dr. Kenneth W. Dowling, representing the National Science Teachers Association.

Expanded programs in environmental education must be provided if an enlightened citizenry is to have the capability to live in such a way that resources will be sustained and a high quality of life maintained. This new emphasis in education must be accepted and developed to the point where it is all-pervasive, interdisciplinary and multifaceted. It must reach all segments of society in every part of the country, and in turn, this country must demonstrate success in environmental education to the rest of the world.

Environmental education continues to need the support of every level of government, including the federal level, if the necessary educational impact is to be achieved. The Alliance for Environmental Education was formed to bring about a nationwide cooperative effort to achieve this impact. The Alliance, as represented by its Board of Directors, meeting at Airlie, Virginia, May 11, 1973, is convinced from the evidence of achievement resulting from the Environmental Education Act of 1970 where relatively small amounts of money have stimulated considerable change in educational programs that there continues to be an important leadership role for the federal government in environmental education.

Sincerely,

KENNETH W. DOWLING, *President.*

I forwarded your request for testimony to Dr. Dowling after an extensive discussion of environmental education priorities and needs by the Board of Directors. The enclosed statement has been endorsed by all the Alliance participating organizations in accordance with Alliance policies and procedures.

If the Alliance for Environmental Education can be of further assistance to you or the Select Subcommittee on Education please do not hesitate to contact us.

Sincerely,

WILLIAM H. LYNCH,
Interim Executive Director.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., May 22, 1973.

HON. CARL D. PERKINS,
Chairman, Education and Labor Committee, House of Representatives,
Washington, D.C.

MY DEAR MR. CHAIRMAN: I am enclosing letter from Mr. Jack S. Roper, Superintendent of the Huntington Beach Union High School District, Huntington Beach, California, with regard to H.R. 3927. It would be appreciated if Mr. Roper's comments could be made a part of the hearing record on H.R. 3927.

With best regards.

Sincerely yours,

CRAIG HOSMER,
Member of Congress.

Enclosure.

[Mailgram]

HUNTINGTON BEACH UNION HIGH SCHOOL,
Huntington Beach, Calif.

Representative CRAIG HOSMER,
Capitol Hill,
Washington, D.C.

Your support of the Environmental Education Act of 1970 and H.R. 3927 is urgently requested. Please include our request in the record of hearings on H.R. 3927. The discontinuation of this legislation would seriously effect our entire environmental education program within the cities of Huntington Beach, Midway City, Seal Beach, Fountain Valley, and Westminister, Calif.

District 1502, Huntington Beach, CA.

JACK S. ROPER,
Superintendent.

CENTRAL WASHINGTON STATE COLLEGE,
Ellensburg, Wash., May 25, 1973.

HON. JOHN BRADMAS,
Chairman, Select Subcommittee on Education,
U.S. House of Representatives,
Washington, D.C.

DEAR SIR: During the past year we have been funded under an environmental education grant which has as its major objective undergraduate preparation of teachers at the elementary education level. Due to a cut back in funds the grant,

while continuing for the 1973-74 academic year, was reduced and limited to in-service education of teachers. We feel that environmental problems in our nation are crucial, and that the strategic group who can significantly change the attitude of a future generation concerning environmental quality is the young teacher. We feel further that this is perhaps the least expensive investment the Nation can make toward improving environmental quality. Renovation and rehabilitation of our environment are extremely expensive, and prevention is always better and less costly than rehabilitation.

We would very much appreciate your support for H.R. 3927, and I would like my letter included in the record of hearings on this bill.

Sincerely yours,

JOHN A. GREEN, *Dean.*

SCIENTISTS' INSTITUTE FOR PUBLIC INFORMATION,
New York, N.Y., April 16, 1973.

Mr. JOHN BRADEMAS,
Chairman, Select Subcommittee on Education,
U.S. House of Representatives,
Washington, D.C.

DEAR MR. BRADEMAS AND MEMBERS OF THE SELECT SUBCOMMITTEE: As the newly elected President of the Scientists' Institute for Public Information, I am delighted to submit the enclosed statement, on the question of extending the Environmental Education Act, for your consideration.

I was privileged to be a reader for the Office of Environmental Education, both during the Extended Staff phase and the Outside Reader Review phase, during the recent grant review process. I was very impressed by the quality of the proposals submitted, particularly in the nature of the innovative programs contained therein. I feel that millions of schoolchildren will be the losers if this Act is not extended, and I therefore urge favorable consideration of H.R. 3927.

I am sure that if there is anything further I can do to be of assistance, you will not hesitate to call on me.

Sincerely yours,

ALAN MCGOWAN, *President.*

Enclosure.

STATEMENT OF ALAN MCGOWAN, PRESIDENT, SCIENTISTS' INSTITUTE FOR PUBLIC INFORMATION

Environmental Education has meant many things to many people, but to everyone involved, it has meant at least one thing—exciting, intensive education that has relevance to the lives, activities and concerns of students. Environmental Education has meant that thousands of students across the country have been—to use a phrase that they themselves have often used—"turned on" by the educative process for the first time in a very long while.

As the Program Director, in 1969 and 1970, of one of the first programs in Environmental Education—the Tilton School Water Pollution Program—and as the co-founder and Vice-President of its successor, the institute for Environmental Education, I can attest to the excitement and involvement that come when students feel that their own education is important. In every program we have run, we have literally had to throw people out of the labs and classrooms. They were involved because they felt that Environmental Education programs had something to do with them, and that this was *their* education.

We have also learned something about the difficulties of implementing Environmental Education programs as well, in the last few years. Students and teachers would often go back to their schools intent on doing something in Environmental Education at their schools, only to find the many bureaucratic obstacles in their way that often confront us all. The best-meaning administrators in the world, beset by the many other problems that running a school today entails, would sometimes find it difficult to help the youngsters and their teachers. This is but one of the reasons that the federal effort in the past has been so important. Not only has the grant program allowed innovative demonstration projects to be developed, and in many cases duplicated across the country, but such things as the President's Environmental Merit Award Program have given welcome visibility to Environmental Education and the specific individuals who have contributed so much to it. This has often meant the difference, in practice, between a prograb being adopted in a school system and the adoption being denied.

Environmental Education is, for the most part, exciting, innovative, intensive, yes—but there is perhaps an even more compelling reason for this nation having a strong Environmental Education program. As we move away from the frenzied excitement of the first Earth Day in 1970 and towards the ever more difficult future of difficult decision making in our search for environmental solutions, the need for an educated and environmentally literate citizenry becomes even more apparent than ever before. We have been able to make the necessary difficult decisions in the past because we have had a knowledgeable public who supported the tough decisions, even demanded them. The tougher decisions that lie before us indicate the need for expanding the environmental literacy of the people of this country far beyond that which we have attempted before.

The federal government plays a crucial role in this attempt. I spoke before about the difference that making Environmental Education a high priority—and backing that up with specific actions—has made in many school systems. This kind of support will be even more necessary in the future as school systems reassess their own priorities and make the decisions that will affect educational programs for years to come.

We have learned much in the three years that the Environmental Education Act, PL 91-516, has been in existence. We have, I think, become a great deal more skillful in detemining the elements of a good program. We have learned some of the things that Environmental Education is not. We have learned, also the importance of the kind of grant program as was in that Act.

Although I would argue that the amount appropriated was far too small to meet the well thought out and exemplary programs for which money was requested, still the grant program did allow many schools and school systems to start projects which would otherwise would not have existed at all. Many times they allowed an individual working within a large and therefore highly bureaucratized system to start things moving just a little bit, and when that little bit was successful, build that into a larger program. Because environmental educators, in my experience, tend to be more than ordinarily resourceful people, they were thus able to use a little bit of support to generate larger programs.

Thus, I think it essential that H.R. 3927, to extend the Environmental Education Act for three years, be enacted. The beneficiaries of this action will not only be millions of schoolchildren who will have an exciting and relevant educational program, but the nation as a whole when these schoolchildren become the environmentally literate adults needed to grapple with the difficult environmental decisions that lie ahead.

STATEMENT OF RUDOLPH J. H. SCHAFER, CHAIRMAN, THE FEDERAL ENVIRONMENTAL PROGRAM, SACRAMENTO, CALIF.

Founded in 1970, the Western Regional Environmental Education Council is an association of state education and resource management agency personnel with responsibilities in the field of environmental education. The council meets regularly and works to encourage the development and implementation of formal and non-formal education programs in this important area throughout the 13 western states. The Council is funded in part through as ESEA Title V, Section 505 grant from the U.S. Office of Education.

At their meeting of February 5–9, 1973 in Santa Fe, New Mexico, Council members discussed the implementation of PL 91-516 by the Environmental Education office of USOE. Realizing that the act will expire in June of this year, members felt that a statement summarizing their experiences with the program together with recommendations for improvement as appropriate would be of value to those charged with carrying on the program should the Act be extended and new funding provided. It should be understood that the Council is a non-political organization, and that this report should not be construed as advocating or opposing any specific legislation.

A study of PL 91-516 indicates that four major functions are assigned to the EE office. These include: (1) developing and conducting a grant program serving both formal school and community agencies, (2) coordinating the environmental education related activities of the various section of USOE, other federal agencies appropriate state and local organizations, (3) providing technical assistance to those conducting environmental education programs, and (4) providing information on programs and activities conducted by the office.

Our specific findings and recommendations concerning each of these functions are as follows:

Funding-Grant Program.—The EE office has failed to make full use of the expertise available from state education and resource management agencies or the various USOE Reginal Offices in determining state funding priorities, reviewing and selecting specific grantees, supervising funded projects, and disseminating materials and information gained from completed projects.

Although a review and comment from state education agencies on all projects from local educational agencies within the state are required, the EE office has made little or no effort to insure that SEA's receive review copies of applications as appropriate, nor do we find that comments submitted are given much consideration. We have been advised that this policy will be changed for the third grant program, but it remains to be seen how effectively it will be implemented.

As a result of these deficiencies, the Federal Grant Program has not been too productive at the local level, nor has it meshed well with on-going state and local level programs.

Recommendation.—The expertise of State Education Agencies, USOE Regional Offices, and other appropriate agencies should be utilized to the fullest extent possible in implementing the EE grant program. Such agencies should be involved in determining state funding priorities, selecting specific grantees, supervising funded projects, and disseminating information and materials produced by grantees.

No grant application from a LEA should be considered for funding unless evidence is submitted indicating that a review copy has been sent to the appropriate state Educational Agency for review and comment.

Although not legally required, grant applications from non-school applicants should also be submitted to the State Educational Agency or other appropriate branch of state government for review and comment. Personnel in these offices are in a position to supply information on local conditions, agencies and individuals which should be of great value in evaluating grant applications.

An effort should be made to insure that all federal grant programs are complementary and supportive of state level programs.

Funding—Coordination—Because the level of funding for PL 91-516 has been quite low, it is evident that the best hope for developing a truly significant national program lies in organizing existing resources available from other offices of USOE, other federal agencies, state and local educational agencies, conservation associations and private industry. For this reason, the Western Regional Council views the synergy or coordinating responsibility of the EE office to be of major importance. The EE office has thus far failed miserably in meeting this challenge.

Item—The efforts of this council—funded in part with a USOE grant to enter into a cooperative working relationship with the EE office have been unsuccessful.

Item—Although many capable and interested individuals are available through the various USOE regional offices, the EE office has made little use of their talents.

Item—No formal organization has been set up though which various federal agencies with programs related to EE can meet and work together on an organized basis.

Item—Offers from state agencies to coordinate funding programs or otherwise assist in the federal program are ignored.

In short, while philosophically stressing the need for all segments of society to work together to solve environmental problems, the EE office has failed to practice what it preaches when it comes to its own operation.

Recommendation.—Should the program be extended, the highest possible priority should be given to setting up mechanisms through which the expertise and resources for EE available throughout the nation may be enlisted and coordinated on a cooperative basis to generate programs and progress in this area. Specific actions to bring this about might include:

1. Conducting a federally-sponsored meeting of state department environmental education representatives to discuss cooperative action and to set up lines of communication.

2. Establishment of a multi-agency coordinating committee consisting of representatives of federal agencies, private conservation groups—business and industry, state educational and resource management agencies, and others responsible for directing environmental education programs.

3. Coordinating all programs and activities conducted as a part of the federal program with appropriate state and/or regional organizations.

TECHNICAL ASSISTANCE FINDING

Little or no technical assistance has been available from the EE office at the local or state level. Not even projects funded under PL 91-516 are given adequate assistance. Little or no effort has been made to utilize the vast reservoir of talent available locally and nationally from a variety of agencies.

Recommendation.—An effort must be made to supply the manpower necessary to provide technical assistance for EE programs as needed. This manpower may be obtained in part by utilizing the services available from a variety of local, state, and regional organizations. An inventory of these human resources should be made and plans developed for their utilization.

Information Services Finding.—Council members report that letters and phone calls to the EE office are almost never answered. Reports and materials from completed projects are generally not available—only a limited number of informational publications have been produced.

Recommendation.—The Federal EE program must have an adequate informational dissemination component so that no serious request for assistance is ignored. Public information on the program should be supplied to the media. Reports on all projects should be available, and those which have been highly successful should be given the widest possible exposure. The services of ERIC and other informational dessemination outlets should be used to the fullest extent possible.

In summary, we believe that the promise and hope we all saw in the Environmental Education Act has failed to materialize in terms of solid programs and meaningful progress. We do not wish to assign blame for these failures, but are anxious to see that past mistakes are not repeated. We see a continuing need for progress in the field and look to the federal government for assistance and leadership. To those who hopefully will carry on this important work, we offer our full support and cooperation.

STATEMENT OF THE SAINT LOUIS COMMITTEE FOR ENVIRONMENTAL INFORMATION, ST. LOUIS, MO.

We wish first to thank Congressman Brademas and his colleagues for the opportunity to comment on the legislation which is being discussed today. As the statement which follows indicates, we at the Saint Louis Committee for Environmental Information (CEI) feel that the success or failure of how we as a nation deal with the environmental problems currently beseiging our land will have extremely far-reaching and long-range effects on our nation, our lives and the lives of generations of our children to come. Educating citizens to respond intelligently to environmental problems is urgent if we hope to commit ourselves to policies and courses of action which will insure the future welfare of the nation as a whole. We have long been concerned with developing and maintaining a flow of accurate, understandable scientific information to the public.

CEI is one of the oldest organizations in the country concerned with environmental problems. Founded in 1958 as a non-profit organization, CEI is composed of participating scientists and citizens who share a common concern about the impact of technology on our environment and our lives, and who work together to gain a clear understanding of that impact and to inform others about it. For fifteen years CEI has been examining the impact of particular technologies and pointing up some of their unanticipated and detrimental consequences. We are also concerned with examining alternative technologies: what hopes they offer, what environmental costs they may entail.

The primary purpose of CEI has always been to provide unbiased scientific information relevant to environmental issues. The organization is premised on the belief that in order to participate effectively in the decision-making process, people must have access to relevant information. In order to develop a new understanding and awareness of one's relation to the environment, one must first understand that one's total environment is the result of a complex interaction of many factors. Understanding this, it then becomes clear that there are no simple solutions to environmental problems. Rather, there are choices to be made, based upon an understanding of the benefits and losses resulting from these decisions.

Thus since its inception CEI has played an important part in increasing the public's awareness of the human relationship to the natural environment and the

way we are altering it. We know from experience that it takes a long time to develop expertise in assessing the information and putting it in a form appropriate to the audience we hope to reach with it. As founders and for fourteen years publishers of *Scientist and Citizen* and then *Environment* magazine, CEI scientists and associates have developed expertise in gathering scientific data, assessing its relevance to the environment, and presenting it in a form that has proved useful to scientists, educators, government agencies, students, the media, and concerned citizens. The magazine, however, requires of its readers an educational level and studious attention that are characteristic of only a limited segment of the population.

CEI has long been aware that Environment magazine reaches a relatively small portion of the population. This year, with the assistance of funding authorized by the Environmental Education Act of 1970, we have attempted to reach different audiences which have an equally urgent need for the same type of environmental information. The nature of our effort to reach wider audiences is two fold. CEI is carrying out two separate projects, each funded through the Office of Environmental Education, to achieve this effort.

One of these long-neglected audiences is the working people of this nation. Through one of our OEE grants, we are focusing our efforts to reach this segment of the population with information which is relevant and understandable. Workers have serious concerns about both their workplace environment and the environment of the community at large, but little information is available to this audience which addresses these concerns.

CEI is presently distributing to labor editors across the country educational material in the form of articles which can be reprinted in union newspapers. Also, the CEI staff is writing pamphlets about environmental problems which are suitable for union education programs. Several St. Louis labor organizations are cooperating in this effort. Based on reactions we have received from workers, editors, and union leaders, there appears to be a strong need for accurate and reliable information written in a non-technical and readable style. Our material meets this need.

Our other OEE funded project is designed to meet the needs of high school teachers who are trying to educate tomorrow's citizens about the complexities of environmental problems and their solutions. With the cooperation of high school teachers in the St. Louis area, CEI staff has developed curriculum materials which are presently being field tested in a local high school. The initial reaction from high school teachers throughout the St. Louis area stresses the urgency and importance of these kinds of materials.

We are enthusiastic about the success of the two projects we have undertaken; however, the job has only begun and we have barely scratched the surface in meeting the enormous challenge of educating the citizenry on environmental issues. The environmental concerns which we address today are so mammoth and pervasive that it is indicrous to think that volunteer citizens groups can shoulder the responsibility of dealing with them unaided.

Despite informational organizations such as ours, it was not until the late 1960's that the average American citizen even realized that we were facing enormous problems of environmental pollution—problems which had been accumulating almost without notice through several decades of rapid technological development. When alerted to the enormity of the problem the initial response of the public was to concentrate its attention on the most obvious symptoms of our environmental problem—pollution, and to focus on the strictly physical aspects of what created it and what could be done to clean it up. There has been a tendency to respond *only* after the problems have developed. We call this the "band-aid" approach to environmental problems. By now this initial reaction has given way to a growing awareness and there are more than physical causes of the environmental problems; that these causes are extremely complex; and that lasting solutions will have to be equally complex and far-reaching.

In a free and democratic society, the responsibility for insuring the existence of an environment conducive to the continuation of our species rests with an informed and educated citizenry. Citizens must understand the contributing factors which have precipitated the problem and how those factors can be manipulated or changed to perpetuate and intensify, or to alleviate and overcome the problems. The U.S. Environmental Health Service notes that, "Today society is being called upon to make decisions . . . which raise difficult questions about public and private rights, or require careful measurement of public benefit against public risk."

In order to best carry out these new responsibilities of citizenship, members of our society must have an understanding of the environment in which we live, and equally important, must possess a sophisticated array of problem-solving

skills in order to make wise and intelligent decisions that balance public and private rights and move our society further toward the maximization of public risk. This process is perhaps best summed up in the speech President Richard M. Nixon gave before Congress in August, 1970 concerning the passage of the original Environmental Education Act. He stressed:

"We need new knowledge, new perceptions, new attitudes . . . We seek nothing less than a basic reform in the way our society looks at problems and makes decisions . . . It is also vital that our entire society develop a new understanding and a new awareness of man's relation to his environment—what might be called 'environmental literacy.' This will require the development and teaching of environmental concepts at every point in the educational process."

The "environmental literacy" so badly needed today can only be achieved through a massive environmental education effort which takes place in all areas of education—both those which are formally academic and others which are non-academic but reach the general public. Such education must have the type of broad support which the federal government can provide. Our environmental problems are national in scope and so must be the efforts to educate people about them.

As an "old" organization in this field, CEI has been working with environmental problems for a long time and feels well qualified to point out that there must be a sustained effort. The environmental problems we are facing continue to be extremely complex. The myriad of factors and mountains of data which must be digested to understand both the situations and the implications of alternative courses for dealing with them present a major undertaking to anyone concerned to do so. The further task of devising educational programs which adequately teach about these complexities cannot be completed quickly. As if teaching about what we already know were not complicated enough, reams of additional information are being produced daily, adding both to the education problem and the need for education.

The Environmental Education Act is completing its initial three years. The need for environmental education has been universally recognized and under the Environmental Education Act the expertise for meeting that need was just beginning to emerge. This kind of beginning commitment needs to be expanded and supported through funding, both public and private, in order to meet our critical national need in the area of environmental education.

STATEMENT OF EDWARD W. WEIDNER CHANCELLOR, THE UNIVERSITY OF WISCONSIN-GREEN BAY

Mr. Chairman: Thank you very much for the honor of appearing before you today to provide testimony in regard to extension of the Environmental Education Act of 1970. As you and other members of the Committee are aware, I appeared here in March of 1970 and spoke of the need for attitude change in this county so that we might begin to move toward a better environment for all. The three years which have passed since I last addressed this distinguished Committee have seen much advancement on the environmental front. The accomplishments of this period have been measurable and significant. One such accomplishment was the Environmental Education Act itself. The bipartisan support and resulting enactment of this landmark piece of legislation gave hope for movement in regard to environmental education on a broad front. That hope spurred beginnings, commitments and activities in the field of Environmental Education which are notable.

For example, all of the 50 states, the District of Columbia, Puerto Rico, and Micronesia have received grants under the Environmental Education Act during the past year. Further, over half of the states have established statewide planning groups or councils for environmental education. Several regional planning groups exist, and a number of statewide environmental education programs have been funded. Many states have passed or are considering the passage of their own environmental education acts patterned on Public Law 91-516. Further evidence of the impact of this act on developments in environmental education across the country is seen in the formation of groups like the National Association for Environmental Education and the recently formed Alliance for Environmental Education. The increasing number of professional conferences, newsletters and journals devoted to disseminating information on this important subject is also significant.

But there is much yet to be done. More specifically, these fledgling new activities need continuing stimulus if they are to grow strong. And there is still need for additional thrusts. As a nation among nations, we have yet to develop an adequate environmental ethic. Indeed, it is still elusively distant.

This committee is receiving testimony on the future of Environmental Education in this country. Specifically, the question of the extension of the Environmental Education Act of 1970 is to be answered. My own experience with the Act and its implementation over the past three years and my assessment of today's and tomorrow's needs compels me to say, yes, by all means extend it.

However, a mere extension of the Act, regardless of the amount of money authorized, is not adequate. There have been so many shortcomings revealed in the operation of the Act in the last three years, that a mere extension might well be a hollow action. Permit me to comment, Mr. Chairman, on six important concerns:

(1) There have been some suggestions that administration of the Act be funnelled in part or completely through ten U.S. regional offices or fifty state offices, or both. I do not believe that improvement lies in the extension of bureaucracy, however. More particularly, I cannot embrace proposals for development of regional and/or state administrative structures. One of the difficulties in administering the present Act is the unbelievable bureaucratic pitfalls and hurdles placed in the path of OEE. Adding significantly to the weight of bureaucracy by creating regional and state agencies, pitfalls, and hurdles will completely frustrate administration. Experience in all kinds of federal programs indicate that a combined national, regional, and state approach is only effective where there is agreement on program objectives at all levels. We do not even have agreement on program objectives at the federal level.

(2) It is important that all three levels of education—community, elementary and secondary, and post-secondary—be authorized to cooperate and participate in environmental education programs. It is ghettoizing to exclude any one of these. In order that one kind of education does not dominate, preference should be given to proposals that involve joint participation by at least two of the three kinds of education. When I came before this committee three years ago, I told of the beginnings of the "communiversity" idea at the University of Wisconsin—Green Bay. I described "communiversity" as a socially responsible university relating to a socially responsible community. I am proud to say that this concept, then embryonic, is now a pleasant reality. We have learned much through development of this approach to problem-focused education. One thing we have learned is the value of cooperation. A university must relate creativity to its community and to elementary and secondary schools in its region. Similarly, those in community education and elementary and secondary education must learn the value of working with each other and with the post-secondary institutions in their region. Environmental education must be persuasive if it is to be effective. Cooperative effort is needed for value change and for development of citizen concern, awareness, and understanding of environmental issues. I would proposals which provide for school systems, universities, and community groups propose, therefore, that the Environmental Education Act be amended so that to engage in joint efforts be strongly supported.

(3) The advisory mechanism provided in the Environmental Education Act is defective. I have included as part of my written testimony today a copy of my letter of resignation from the National Advisory Council on Environmental Education. In that letter to Secretary Weinberger, I indicated several disappointments with the manner in which the Advisory Council had been received within the Department of Health, Education, and Welfare.

I would like to review these points briefly:

(1) the Advisory Council was constituted in such a way as to hinder its effectiveness. No remedial action was taken when its ineffectiveness was apparent to all.

(2) the Council was never given substantial staff support.

(3) the Council and its recommendations have not been of interest to HEW. On the contrary, the Council has been received with silence or with demeaning humor.

I believe the Advisory Council can succeed in playing an important role in the future of Environmental Education—the role intended by the implementing legislation—only by improving its position on four fronts. First, the areas of responsibility of the Council itself need to be clearly defined. Second, its position within its parent agency needs to be measurably improved. Third, more care needs to be

taken in assuring a balanced and compatible group of appointees. Fourth, procedures of the Council need to be clarified. Mr. Chairman, there is more than a slight suspicion that the present Council is appointed and set up in such a way as to minimize its effectiveness and to maximize its awkwardness. This is grossly unfair to conscientious citizens who sacrifice their time to help contribute to more effective national policy.

(4) The procedures for evaluation of projects that have received grants have been weak. There has been confusion within the Advisory Council in this regard. Reliable evaluation requires specialized, professional knowledge and abilities, not necessarily found on a citizen's council. A governmental agency tends to be a biased evaluation mechanism. Contracting for independent, outside appraisal of the results of completed projects should be a normal part of the operations of the Office of Environmental Education. Monitoring such appraisals should be a function of both the Advisory Council and OEE.

(5) Similarly, confusion has existed in regard to the dissemination of information about successful environmental education practices and projects. For a time, some members of the Advisory Council felt this was their function. Gradually, it became apparent that dissemination was a function of OEE, at least in part, and that an important degree of reliance must be placed on outside groups such as Educational Resources Information Center and the Alliance for Environmental Education. Much more effort needs to be placed on dissemination activities if maximum benefit is to flow from pilot projects.

(6) Mr. Chairman, the most discouraging fact of all is that there is no hospitable home for the Office of Environmental Education in the Office of Education or in HEW. The official position of the Department is against extension of the Act. This is no surprise. During the past three years, every conceivable roadblock was placed in the path of the Office of Environmental Education. At first it seemed that this was just traditional bureaucratic infighting. The Office of Education is staffed by a group of professional educators, primarily interested in elementary and secondary education in rather traditional terms. Environmental education was neither their central interest nor of their concern. Rather, it appeared to be an upstart competitor for funds and a possible threat to bureaucratic power—after all, OEE was to do some "coordination" of OE's environmental education activities, and some "regular" education funds were to be devoted to environmental education. It has been clear that the secondary and tertiary leadership in OE has been openly anti-environmental education.

More recently, it has been clear that the primary leadership of HEW is also anti-environmental education. It has been very interested in career education. It has failed to see the great promise of problem-oriented education, and at all levels—community, elementary, secondary, and higher education. It now opposes the Act's extension, and fund impoundment is threatened.

It is possible to place the Act in the hands of another agency, such as the Environmental Protection Agency. It is quite apparent that there would be more receptivity in that agency, at least currently, than in any part of HEW. However, there are two shortcomings to such a proposal. To make such a change, a new Congressional committee would be involved. It would be difficult to develop new Congressional support. Secondly, in the long run environmental education should become an integral part of problem-oriented education at all levels. EPA, not being the basic education agency, would find it difficult to promote such a concept. Environmental education might become just an exotic—and temporary add-on to the programs of educational groups and institutions.

It would be my recommendation that unless specific commitments of support can be obtained from HEW in advance, that a change in the agency administering the Act be made.

Let me conclude as I did three years ago. The theme of man in his environment is not a fad for an educational group or institution. It is not just a fancy "add-on" to permit an institution to appear contemporary or to assist in attracting outside funds. Rather, man in his environment must take its place as a fundamental aspect of the educational activities of every educational agency that concerns itself with the future of mankind. Not to do so will thwart us in developing the environmental awareness, ethic, and action that we so desperately need.

SUSQUEHANNA ENVIRONMENTAL EDUCATION ASSOCIATION,
Endwell, N.Y., April 20, 1973.

Hon. JOHN BRADEMAS,
Chairman, Select Subcommittee on Education of Committee on Education and Labor, House of Representatives, Washington, D.C.

DEAR CONGRESSMAN BRADEMAS: Since relatively little testimony was brought before the April 17 Subcommittee Hearing on H.R. 3927 regarding the role of the States in environmental education, I would like to call your attention to the meeting being co-sponsored by the Office of Education and the Center for Research and Education which will evaluate state planning and implementation of environmental education. The meeting is to be in Estes Park, Colorado, May 16–18, and if time permits, I would suggest that the conference report be appended to the record of the Subcommittee's formal hearings.

The status of environmental education in New York State is best illustrated by the presently pending bills before the State Legislature and by the Annual Report of the Temporary State Commission on Youth Education in Environmental Conservation. Copies are being sent to you, but because of their length, I am requesting that only the enclosed summary (attachment #1 be included in the hearing record.

Additionally, I am enclosing a paper presented in 1970 (attachment #2) which indicates where we started, an article published earlier this month (attachment #3) which attempts to show where we are now, and a recent editorial (attachment #4) which succinctly summarizes the compelling need for environmental education. I request that these statements also be inserted in the record.

The primary responsibility for leadership, initiative and support for environmental education remains squarely on Congressional shoulders . . . since no amount of revenue sharing or haphazard state planning can achieve the essential goals before irrevocable losses and damages accrue.

We urge your continued perseverance for Congressional action to extend the Environmental Education Act, appropriately amended to overcome its technical and administrative difficulties as outlined in the Annual Report of the Advisory Council on Environmental Education.

Sincerely,

NANCY AYERS,
Executive Director.

Enclosures.

FIVE BILLS ON ENVIRONMENTAL EDUCATION

After four years of deliberation, evaluation and study, the Temporary State Commission on Youth Education in Environmental Conservation has submitted five bills on environmental education to the Legislature this session. In effect, they would improve the environmental education services of both the Departments of Environmental Conservation and Education, and provide new funds for local assistance grants in this rapidly expanding field.

Comments on the bills should be sent to Senator Bernard C. Smith and Assemblyman C. D. Lane, the Assembly sponsor.

1. *S. 5412A*—An act to amend the environmental conservation law in order to compile and maintain an inventory of environmental resources in the state of New York which can be used for educational purposes.

This bill would charge the Department of Environmental Conservation with the responsibility of operating a central, statewide clearinghouse to provide the public with information regarding: (a) Natural resources and facilities which can be used for environmental educational purposes. (b) Conservation and environmental organizations, both public and private. (c) Resource personnel. (d) Curriculum resources. (e) A calendar of environmental education activities.

Budget implications for S. 5412A

1. Associate Conservation Educator G21—as Program Director	$13,959
1 Stenographer G5—Central Office	5,742
Supplies, materials, printing, travel, phone, etc	5,299
Total	25,000

2. *S5419A*—An act to amend the environment conservation law, in relation to the establishment of regional environmental conservation education coordinates, and making an appropriation therefor.

This bill would locate in each of the nine DEC regions of the state a Regional Environmental Conservation Education Coordinator who would be responsible for providing the following public services: (a) Facilitating and coordinating environmental conservation education on the regional level. (b) Disseminating information on regional environmental conservation education resources. (c) Clarifying and routing requests for information on environmental conservation education. (d) Assisting the residents of each region by providing expert advice on organization, planing, design and implementation of environmental conservation education programs. (e) Helping to foster region-wide cooperation and communication among those involved in environmental conservation education.

Budget implications for S. 5419 A

9 Senior Conservation Educators GIS 41 @ $11,929	$107,351
Supplies, materials, phones, travel, etc. @ $4,000	36,000
1 Associate Conservation Educator G21—as Central Office Manager for 9 regional educators	13,959
1 Stenographer G5—Central Office	5,742
1 Principal Clerk G11—Central Office Clearinghouse	8,037
Supplies, materials, printing, travel, phone, etc., for Central Office administration group	8,901
Total	180,000

3. *S. 5420 A*—An act to amend the executive law, in relation to creating a council on education in environmental conservation.

This bill would create a State Council on Education in Environmental Conservation, which would administer an environmental education grants program and would work for improved environmental education programming by public and private agencies.

The intent of the bill is to create a focal point for environmental education in the state for a period of five years. The Council would consist of 15 members appointed by the Governor with the advice and consent of the Senate. Eleven of these members would be citizens representing different regions of the State who by training or experience had backgrounds in environmental education, conservation, and related fields. The remaining four members would be the Commissioner of Education, the Commissioner of Environmental Conservation, the Commissioner of Parks and Recreation, and the Chancellor of the State University.

The Council would be charged with the responsibility of developing and administering a program of nonrenewable, small incentive grants for local, regional, and statewide organizations to foster programs in the field of environmental conservation education. During the first year of operation, the small grants program would consist of three grant categories: (a) Category 1: mini-grants for local applicants for a maximum of $1,000/grant. (Local applicants may be public or private agencies with a primary concern in environmental education.) (b) Category 2: regional grants for multi-sponsored projects for a maximum of $5,000/grant. (c) Category 3: research and development grants for major regional consortium projects specifically oriented to geographical needs for a maximum of $10,000/grant.

Budget implications for S. 5420A (FY 74)

Small Grants Program	$1,000,000
Council Administration	150,000
Total	1,150,000

4. *S. 5418A*—An act to amend the education law, in relation to curriculum revision in environmental conservation matters.

This bill would make it the duty of the Commissioner of Education to review and revise by June 30, 1975 the existing curricula for all grade levels and all subjects to provide to the fullest extent possible, instruction in environmental education and to assist in the development of new materials and text books which incorporate such curriculum revisions.

5. *S. 5417*—An act to amend the education law, in relation to the teaching of environmental conservation principles in elementary and secondary schools.

This bill would make it the duty of the Commissioner of Education to prescribe

courses of instruction in environmental conservation wit[illegible] all elementary and secondary schools.

The bill recognizes that such courses may be varied to me[illegible] the needs of particular school districts and need not be uniform throughout th[illegible] state.

STRATEGIES FOR MANAGING NATURAL RESOURCES THROUGH ECO-ACTION[1]

To understand natural resource management, we must establish some definitions. This leads us first to environmental education, which is, of course, how you will explain and apply the concepts we are talking about. Currently awaiting the President's signature[2] in the United States is a bill to establish the National Environmental Education Act, from which I quote as follows:

"Environmental education means the process dealing with man's relationship with his natural and man-made surroundings, and includes the relationship of population, pollution, resource allocation and depletion, conservation, transportation, technology, and urban and rural planning to the total human environment.

This covers just about everything and everybody, indicating in the process that evolution is not necessarily synonymous with progress, unless you acknowledge that you may progress to a lower level of life rather than a higher level.

The new law provides many more channels for expanding the scope of environmental education, including community education to reach the many decision makers who are still environmentally ignorant. This brings up another important aspect.

In your role as educators, your credibility to the student is based on your relationship to the community more than your classroom presentation—on what *you do* rather than what you *say*. Hindsight is useful in this respect to remind us that civilizations have classically underestimated the consequences of their actions and thus have disappeared with the dinosaurs.

Students have a penetrating capacity for sorting the discrepancies caused by our lack of ecological conscience. For most of us, ethics has always been a dusty, old subject relegated to a few remote scholars as we blithely ignored or subliminated the broad implications of world citizenship.

This just won't do.

In order to be a teacher, your civic responsibility comes first. Then, and only then, will you be able to give the student a valid perspective of his relationship and responsibility in the life cycle. Perhaps I should remind you at this juncture that education is no longer confined to the classroom or to formal courses. Education is forever, so to speak.

Not everybody needs a PhD., but we are all perennial students whether we like it or not. We are bombarded by television and a paper explosion of printed materials (which is a pollution problem in itself). We must increase our level of awareness in order to utilize effectively the pertinent information. In particular, we must be conscious of change. We have reached the threshold of understanding that all knowledge is limited, and subject to change based on new discoveries, and as you well know, with ever greater rapidity. Flexibility and adaptability are the key characteristics in this evolutionary process. They are especially important in the search for open-ended solutions which are most likely to being solving our environmental problems. In this context we should be wary of over-specialization. Generalists are vitally important as catalytic agents, the "glue" to hold the various experts and disciplines together in a balanced system which recognizes that the sum is the total of all these interrelated parts, that it is a closed system and that it has finite parts. This concept can be summarized as an arithmetical equation:

$$\frac{NR + E}{P} = SOL$$

$$\frac{\text{(Natural Resources plus Environment}}{\text{Population}} \text{ equals Standards of Living)}$$

One set of figures will dramatize this equation. In the recently released First Annual Report of the U.S. Council on Environmental Quality, we find the following quotation on page 14: "Currently the United States, with about 6% of the

[1] Paper presented at "International Conference on Education and the Environment in the Americas," sponsored by The Organization of American States, The American Association of Colleges for Teacher Education, Washington, D.C., October 19–22, 1970.

[2] Subsequently signed into law as P.L. 91–516 on October 30, 1971.

world's population, uses more than 40% of the world's scarce or non-placeable resources." This depletion of natural resources has profound implications for us and the rest of the world since our technological society depends on these resources for energy, building materials, and recreation. The methods of exploitation often create problems exceeding the value of the resources themselves.

Accepting these limitations is your first step, bearing in mind that our past approach to environmental problem-solving in an ad hoc fashion is the cause of the present dilemma. The second step is working for universal acceptance of these limitations. Obviously, these are giant steps with many different phases, two of which we believe are most important to you, participatory citizenship and enlightened education. I mention citizenship *before* education not only because we know experience is one of the best teachers, but also because it underscores the crucial point that education is NOT algebra, science, and term papers. Those are means, not ends. We seem to have lost sight of this in many cases, which I submit accounts for much of the student restlessness at whatever age. Unless we teach algebra for what it is (like grammar or typing, or nearly anything else), a mechanism for understanding or solving problems, (such as all those interlocked in the equation we just mentioned), nobody will be listening.

The most visible, most tangible problems are within a fairly limited radius of where we live. By being aware of them and directly involved in some way in their management and solution, we are able to establish a sense of relativity to problems of larger dimension. And the concept of interdependence becomes real.

REAL—Everything seems to hinge on that word, particularly with the younger generation. It reminds me of an interesting term to describe conservationists who are more talk than action. They are called "nature fakers." By being involved beyond the classroom, teachers avoid the phoniness of spouting lofty platitudes from the isolated segregation of their curricular podium. No amount of discipline can command the attention of a student, who thinks you're a "nature faker."

Now, to save you from such a dreadful fate, I would like to share some suggestions gleaned during the past seven years since I made my own first conscious move towards environmental action. Along with other community volunteers, we have evolved what might be called

RULES FOR PEOPLE, POLITICS AND ECO-ACTION

In Your Homework

What do you really know about your community outside your school? How—or does—your subject relate to the outside environment? Why? What can you do about it? I know you're quite familiar with homework, but how long since YOU did any? It is absolutely essential, and as technology accelerates our capability, it becomes a critical and continuous process. Being an authority on English 101 is not likely to influence City Council, the School Board, the Chamber of Commerce or Student Government. A word of caution should be inserted here about semantics. *Don't.* This is one of the most wasteful games people play. Whatever language you use, English or Spanish or any other, it should be plain. The jargon of math, science, or computer terminology must be translated for general consumption, leading again not only to homework but to an emphasis on clear communication.

Pick a Local Issue

As indicated earlier, your ability to understand a problem is inversely proportional to your distance from it. There are hazards in being too close to a situation, but the further away you are the more indifferent you become. It is extremely difficult for the people where I live in Upstate New York to comprehend the problems in South Dakota or South America, and vice versa. When we emphasize local issues, we do not intend to minimize the needs of the larger issues at state and national levels. It is quite simply the comparative analogy of elementary education to secondary education to higher education, each one based on the one before. Illustrating your subject with local relationships provides a unique teaching device and shows the relevance to life which students are so loudly questioning.

Just one example of this is the experience of one of our tenth grade biology classes. These youngsters were so completely indifferent to classroom lectures that their teacher and I took them on a series of field trips. Initially, they didn't care where we were going so long as it was *out* of the school.

When we arrived at the Sewage Treatment Plant, several of the girls immediately held their noses, complaining "This place stinks!" But curiosity got the better of them as they watched the operations and began to ask ques-

tions. "Is the water pure after processing?" "Why not?" "What does it cost to make the water pure?" "Who pays for it?" "Is it safe to swim in the river?" "Who decides the water quality standards?" With this fusillade of questions continuing, we moved on to the Water Purification Plant which is the municipal water supply. The students were instantly aware that this facility appeared "clean" as compared to the "dirty" sewage processing. These discoveries helped demonstrate that biology could be useful. In addition, they benefited from the practice in essay writing, group discussion and debate, and research into an adult problem. I also suspect it was the first time most of them had read a newspaper with any sense of involvement when some of the essays were published in the local Press.

Utilize the News Media

Cooperating with the news people can provide educators with very valuable allies. Almost always they know more about the community than anyone else, including the political pecking order, which is a major ingredient in public problem solving. If you want the newsmen to respond, even to disagreeable or controversial issues, find out their methods, their deadlines, their interests, and thier names. Keep in mind that they are seldom influenced by anything but candor and accuracy.

Know Your Adversary

As educators or environmentalists, we cannot afford an isolationist attitude. Ivory towers and tunnel vision are OUT. Plagued as we are with all kinds of pollution—air pollution, water pollution, soil pollution, noise pollution, people pollution—it is imperative that we get acquainted with our legislators, public officials, school administrators, industrial[illegible] and businessmen. It is particularly imperative right now if we want evalu[illegible], not revolution. These troubles are rooted in moral issues, and we must e[illegible]ly avoid being led into an educational swamp.

In the debate on civil rights vs. the environment, a black man brings out another side of the morality issue. He says, "The basic philosophy of industry and government, which must be changed before either problem can be overcome, is the acquisition of money for sensual pleasures. This is the cause of the misuse of the environment and the dehumanization of the blacks. All this new flair in ecology is an attempt to try to save the environment. The black man is also a part of natural resources." There is no "either-or" with civil rights and the environment. It is a matter of coexistence. Our score on coexistence is not so good, is it? Which once again underscores the compelling necessity for education to focus on the problems first, and the mechanics second. This applies to all levels, but most especially to the college for teacher education.

Here I call your attention to the undergraduate curriculum at the University of Wisconsin, which concentrates on this approach via its Liberal Education Seminars. In the first year of the LES program, basic concepts are examined, the second is spent in community study and involvement, and the third the students live in a different social culture. As seniors, they attempt to solve the problem of their choice, whether it be road building, water supply, health protection, solid waste disposal or recreation resources, or any other of the many management chores facing us. Isn't it strange that we admit to the need to manage busines and industry but have so long ignored the greater need for environmental management?

Circulate Your Information

There's an old joke in this country which asks the three fastest means of sending a message are telephone, telegraph and tell-a-woman. I recommend all three, and would like to mention several other methods, the mimeograph and the photocopier. Judicious use of these assorted methods can multiply the effectiveness of letters and educational materials. Reproductions can be used as news releases or supplements to them, based on correspondence with public officials and elected representatives. (i.e. prelection questionnaire on environmental issues). This is a generally neglected area of attention, perhaps because so few people seem to know how to write a proper letter, besides not paying attention to the issues.

One of the most popular fact sheets distributed by our local volunteer citizens group is "Guidelines for Writing to Your Elected Representatives" which lists eleven simple suggestions to let your legislator know your opinion successfully. Every student should understand the technique, and the need for applying it. Along with the national trend, fact sheets on "Pollution Solutions" and "Eco-Action Readings" have also been in demand.

I'm sure by now you know I'm saying your most important task in managing natural resources is to understand and to become involved yourself before you try to explain the problem to your students. We repeat the need for flexibility. An open mind is a prerequisite for the goal of environmental coexistence. In summary, we come back to value choices. Again quoting from the report to Congress on Environmental Quality, "Choices will have to be made on which problem have first claim on resources. Four main criteria should determine this priority:

1. The intrinsic importance of the problems—the harm caused by failing to solve them.
2. The rate at which the problems are going to increase in magnitude and intensity over the next few years.
3. The irreversibility of the damage if immediate action is not taken.
4. The measure of the benefits to society compared to the cost of taking action."

We don't pretend setting priorities is easy. This difficulty is one of the reasons the strategies we have emphasized are directed at human resources. Unless these are integrated first, the rest of our natural resources won't matter, because "no man is an island, and no creature of any kind is independent of its habitat. Changes cannot take place in one part of the complex web of life without affecting the whole. Every proposed human change in the environment must be considered for its total effects. Ignorance of the long-term, indirect consequences of human activities is the root of the contemporary crisis." (President's Council on Recreation and Natural Beauty).

There must be a massive environmental education effort to deal with these problems.

This effort should be characterized by the following:

1. Its purpose should be to establish sound, ecologically-oriented attitudes.
2. It should be aimed at achieving an integrated understanding of man's interrelationship with his environment and all of its inhabitants.
3. It should avoid orthodoxy in favor of innovative approaches to accepting a pluralism of values.
4. It will be stimulated by imaginative utilization of new educational technologies, especially television.
5. It should be based on facts and encompass all disciplines, most especially the humanities.
6. It should be differentiated so that the content can be shaped appropriately for the students' level of understanding.
7. It should be aimed at all segments of society.
8. It should be a joint function of many institutions of our society-school family, church, etc..
9. It needs special attention to the training of coordinators and consultants to assist teachers in relating their subject effectively to the over-all environmental concepts.
10. It demands cooperation, coordination, and coherence from the diverse public and private agencies and organizations involved.
11. Its most important ingredient is you—individually and collectively—combining participatory citizenship with basic environmental principles.

In closing, I would like to use someone else's words. "Robinson Jeffers advises us. In his perceptive poem, "Refuges for People" that

> "There is no escape. We have gathered vast populations
> incapable of free survival, insulated
> From the strong earth, each person in himself helpless, on
> all dependent. The circle is closed, and the net
> Is being hauled in . . ."

Finally, I quote Mitchell Krucoff from Wilson High School, in Washington, D.C., who expresses the compelling convictions of today's young people:

> "I want to live,
> I want to learn,
> I want to teach,
> I want to help.
> But they say I can't do it now.
>
> I am told that I must wait till I grow up
> And old.
> And become wise,
> On that day I'll take a hold of life,
> Just in time to die.

To die throughout life
That one may live throughout death
Is a game I cannot play.

Yesterday is gone,
Tomorrow is yet to come,
The time is now,
And now is the time to act."

EARTH WEEK . . . PARADE OF PROGRESS OR FALSE ALARM?

Earth Week 1973 . . . and where are we? Still in trouble, still not fully committed, but finally showing signs of progress. Ten years ago only a few scientific oracles suspected the coming environmental crisis. Five years ago many more people began to wake up, coughing and sputtering, asking questions about what was happening to their world. All this commotion catalyzed into the mass rally of Earth Day I on April 22, 1970.

In the following three years many things have changed, stimulated by a sequence of numerous events culminating in the United Nations Conference on the Human Environment in Stockholm last June. For the first time in history, we have a Declaration on the Human Environment which enumerates "common principles to inspire and guide the peoples of the world in the preservation and enhancement of the human environment." Despite its generally uninspiring language, the Declaration is much more than another wall hanging.

In their review of the conference, Resources for the Future, Inc., points out "Assertions such as 'states have . . . the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that (these) activities . . . do not cause damage to the environment of other states,' (Principle 21), or 'states shall cooperate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage . . . .' (Principle 22) may have been made before but their elevation to a declared UN policy is cause for satisfaction." For all their shortcomings, the Stockholm documents provide us with an international reference point and focus in the new and mostly uncharted field of environmental concern.

This should help dispel once and for all any latent myths about the rights of any nation or any other collective or individual body to infringe on the environmental quality or natural resources of any other sovereignty. It casts a new perspective on the annual consumption in the country of nearly half the world's natural resources for approximately 6% of the world's population. If we continue to ignore this inequality, the "Third World" of developing nations will certainly erupt again in anger and frustration.

In another recent report, the Conservation Foundation examines environmental issues nationally and states "The Administration's fiscal 1974 budget for environmental programs (is) a witches' brew of presidential and congressional politics." Since the federal budget determines as well as reflects national philosophy, including both domestic and foreign policy, this is a cause for grave concern.

CF admits that "In a limited sense, environmentalists are in a weak position to complain about appropriations requests for their programs, especially considering the drastic cuts planned for so many non-environmental social programs . . . Nor is it feasible to ignore public concern over inflation, the national debt and the threat of higher taxes."

Still it is important to note, as their report continues, that ". . . environmentalists can legitimately join the ranks of the many observers who have pointedly wondered why the President's diligent fiscal sleuths were unwilling or unable to liberate more funds for sound social and environmental programs by ferreting out comparable waste and inefficiency in the defense budget, in foreign military aid, in the space program and in a wide range of tax and other corporate subsidies, such as the 'bailing out' of the Penn Central and Lockheed." One example of Administration inconsistency is its requested defense budget increase of $4.2 billion for what is supposed to be a peacetime operation. At the same time, though they did propose less money for concrete in Corps of Engineers' projects, another $5.8 million is requested for further studies on the SST, and nuclear energy is pegged at $400 million versus $82.4 million for all other energy sources.

While Federal policy on environmental support remains hazy, the Congress appears much more sensitive to the needs and seems determined to have a showdown confrontation with the President over fiscal policy and program priorities. Outside the government, responses are coming from many new areas. The United

Business and Investment Report, which is perhaps not the most likely place to expect environmental awareness, declared in a recent issue that "Pressures from industries threatened by proposed environmental legislation will continue, of course. But Congressional interest remains high, and public sentiment is running ever more strongly in favor of controls, so prospects for passage of some significant and far-reaching environmental legislation are high this year." Illustrative of the public interest is the formation of the Alliance for Environmental Education, a consortium of national organizations concerned with providing the educational base for environmental decision-making which plagues us at all levels.

Among the ambitions federal legislation that environmentalists have set their sights on for this Congressional session are land use controls, strip mining curbs, solid waste disposal programs, and mass transportation development under the previously sacrosanct highway trust fund. While prospects for the above appear hopeful, there is more doubtfulness surrounding citizen's rights to class action suits on ecological issues. Nor are there very great expectations for any categorical grants programs, including the dismally short-changed environmental education program as shown in the annual report of the National Advisory Council on Environmental Education.

Meanwhile, there is similar ambivalence in Albany. Though the Legislature has voted to postpone implementation of the Adirondack Park Plan, it is anticipated that the Governor will veto the postponement or offer a compromise bill.

On the other hand, more environmental bills have been introduced during this session than ever before. It sometimes seems as if every legislator is anxious to have his name on as many bills as possible to prove his environmental concern. This would not be a fair conclusion, since many of the issues and problems are only now coming to a point where appropriate legislation can be determined for introduction. Pending bills range from the amended proposal for banning phosphates, which will exempt only dishwasher compounds and certain institutional uses after June 30, 1973, to a variety of introductions dealing with returnable or biodegradable containers. Other bills relate to solid wastes, noise, land use, wetlands, citizens suits, environmental impact statements, energy, population, transportation, environmental education, plus many more.

Two months after the first EARTH DAY, the Legislature established the Department of Environmental Conservation to centralize environmental regulation and management. Under the same mandate, the department is required to present a State Environmental Plan to the Legislature this year. They have already successfully taken the Environmental Bond Issue to public referendum last November and the Commissioner has issued rules and regulations affecting many environmentally-related activities, resulting in fines for non-compliance in a number of cases. The Department has reviewed an increasing number of environmental impact statements required for federally funded projects, but has not so far adopted any procedure for this review.

Other state agencies with prior history of allegiance to other fields have been somewhat less enthusiastic about this new area of concern but subtle changes are becoming evident in such places as the Public Service Commission, the Department of Transportation and the Office of Parks and Recreation. As yet, there appears to be little tangible environmental commitment on the part of the State Education Department, the State University or the Board of Regents. This is one of the primary reasons for the package of environmental education bills sponsored by the Temporary State Commission on Youth Education in Environmental Conservation. Their goal is to stimulate accelerated programs for all ages as defined in Principle 19 of the UN Declaration that "Education in environmental matters . . . is essential to broaden the basis for . . . enlightened opinion and responsible conduct."

The need to place special emphasis on environmental education becomes more apparent, if we list a sampling of local developments.

Item: Department of Transportation halts planning on Front Street Bridge site until further requested by Binghamton City Council.

Item: Johnson City passes flood plain zoning ordinances to qualify residents for federal insurance, but is considering repeal.

Item: Town of Union does NOT pass similar legislation, thereby excluding all part-town residents from low-cost insurance protection.

Item: Broome County requests the Soil Conservation Service to channelize most of the county streams for flood protection.

Item: No action taken on the Maxwell School study on city planning and municipal consolidation.

Item: Vestal Town Board adopts new sign regulation ordinance.

Item: Broome County receives federal grant for riverbank parks acquisition.

Item: State moves ahead on bids for developing Chenango River Park.

Item: Board of Cooperative Educational Services proposes to "adopt" the Finch Hollow Environmental Education Center to develop a full-time program.

Item: SUNY-Binghamton applies for state assistance in expanding and protecting the Campus Nature Preserve.

Item: Broome Community College drops environmental health program because of dubious job market and poor student response.

Item: Public support for recycling solid wastes is not matched by municipal efforts to explore more efficient and economical methods of collection and salvage.

Item: New York State Electric and Gas Corp. releases environmental impact report on the proposed nuclear plant on Cayuga Lake.

This abbreviated listing is a mixed bag of good and bad, of very important and less important . . . because that's the way it is. You win some and you lose a lot, particularly when you lack the information to understand the problems and to objectively consider their conflicts, consequences and compromises.

Paraphrasing the UN principles discussed earlier that "Thou shalt not trespass on one another's environmental rights and resources," we can further clarify the dilemma by asking a number of questions about the above items. Do they or don't they serve the public interest? How do they affect the tax rate? Do they serve one constituency at the expense of another? Do they address the causes or the symptoms of the problems? Is this the way we want to live? Unless you KNOW the answers, you are not in a position to make a sound judgment on whether this list connotes progress, which is a further demonstration of just how difficult it is going to be to contend with environmental planning and management every day, until it becomes a way of life.

Despite the fervent hope of environmentalists' adversaries, the lowering of the hue and cry of the initial stages of the movement does not mean it is dead or dying. Sure, the flag waving and heckling have waned, and won't be missed by anyone. But the cumulative impact of more and more people becoming interested and involved in relating environmental issues to their daily routine, at home, at school, at work, has diluted the razzle-dazzle news value. THAT IS PROGRESS, albeit just a beginning. In summary, what can we conclude from all these diverse factors and actions? Since it is virtually impossible to analyze history while you're making it, one must be cautious about assuming too much, or too little. It seems reasonable to suggest that we are in the midst of a new Renaissance precipitated by environmental necessity which will profoundly alter social and cultural values on an universal basis. It is doubtful if the Renaissance of learning in Europe was recognized as such when it began in the 14th Century, or even when it reached its pinnacle in the 16th Century.

Applying this analogy, it does seem certain that we have progressed beyond the stage which Stewart Udall called "The Quiet Crisis" and are on the threshold of developing an ecological conscience which will require radical changes in life styles and patterns of behavior. The birth pangs will in all probability be painful because of our long-time interference with the laws of Nature. But just as surely we can reestablish a balanced ecosystem for all living things.

It will take a good deal more than optimism to achieve this humanistic revival . . . but that's up to you.

The Itch Begins With You

The conservation of our environment must be as much an educational effort against ignorance, apathy and habit as it is the business of enforcing laws or building sewage treatment plants. In truth, even if we had unlimited funds, manpower and organization in the future, it would be insufficient for the job because the source of the problem lies within the minds and hearts of people.

We need to live conservation, not talk about it, legislate it or buy it. And we must live it unconsciously, automatically and consistently. It must become an expression of everything we do or think. It must, in Whitman's words, continually "itch in your ears."

How do we implant that itch? Through environmental education.

We don't rob each other because morally we KNOW it's wrong—it's illegal, too. When the day comes that someone doesn't build on a flood plain because he KNOWS it's wrong—that his act is contrary to Natural Law—then we'll have conservation; and not because flood plain zoning was enacted.

How do we begin to KNOW? Through environmental education.

In New York, it is not a few prominent, corporate giants which are the great threat to the environment. Through law, they can be controlled. It is 18,000,000 individual, independent decision makers whose combined day in, day out impact on our shared environment is enormous.

How do we reach 18,000,000 people? Through environmental education.

One of the basic premises of environmental education is that you can't respect and care for something you know nothing about—that through knowledge comes awareness, and understanding; through understanding, appreciation; through appreciation, love; and through love, active conservation.

How do we generate this conservation? Through environmental education.

The need for environmental education may appear obvious. Not so. "When we lack the will to see things as they are, there is nothing so mystifying as the obvious," observes Irving Kristol. No, the obvious is not obvious. In government, environmental education becomes confused with public relations and suffers accordingly. In education, it gets smothered by academics because it doesn't fit neatly into any one discipline or school routine. In the home, it is parentally regarded as something that should have taken place in school or at the next door neighbors' and certainly not for anyone over 21.

Environmental education is suffering from neglect. It needs your support. The itch begins with you.

STATEMENT OF MRS. CATHARINE BARRETT, PRESIDENT OF THE NATIONAL EDUCATION ASSOCIATION

The National Education Association, the largest professional organization in the country, is pleased to submit this statement in support of H.R. 3927.

The NEA is an independent voluntary organization of educators. It presently has over 1,200,000 members employed in public schools and colleges and is the largest organization of public employees in the nation. With its 50 state affiliates and over 9,000 local affiliates, the NEA speaks for a combined membership of approximately 2,000,000 public employees.

The Environmental Education Act (Public Law 91–56) was enacted into law October 30, 1970. It authorized expenditures of $15,000,000 for fiscal 1972, and $25,000,000 for fiscal 1973.

The Act called for initiation and maintenance of programs in environmental education at the elementary and secondary levels as well as training programs for teachers. The Act specifically called for grants to and contracts with institutions of higher education and state and local educational agencies.

It is a matter of record that to date the provisions and intent of the law remain virtually unfulfilled. A review of the facts leads one to the conclusion that legal provisions for remedial education to counteract the deterioration of the environment and improve the quality of life are suffering from, at best, administrative neglect or insouciance.

Public Law 91–56 calls for the establishment of an Office of Environmental Education and the appointment of a Director. A full year intervened before the first Director was named. Within nine months he had been discharged. Approximately another half year passed before the appointment of the present Director.

Despite the need for an enlarged staff to adequately administer the Act, the staff of the Office of Environmental Education has remained at seven despite plans to enlarge it to thirteen. The effects of periodic manpower freezes, budget uncertainties, and the decision to exclude the grants program from the fiscal year 1974 budget took their toll.

OEE anticipated that in this, the third year of grants, $3.18 million would be distributed among an estimated 175 projects—a far cry from the intent of the authors of the legislation! Worsening the outlook was the news release last week from the HEW Secretary which stated that an approximately 60 million dollar "reserve" may have to be withheld from a number of programs in the Office of Education. This could mean a reduction of the 3.18 million to 1.1 million, reducing the 175 projects to 50. This is certainly an all-time low, in effect utter negation of President Nixon's public assertion that "it is vital that our entire society develop a new understanding and a new awareness of man's relation to his environment."

It is shocking to note that less than four percent of nearly 2,000 proposals submitted to OEE have been funded and that those projects funded have fallen far short of the Congressional intent "to provide encouragement for elementary and high school environmental education."

The National Education Association has supported the intent of the Environmental Education Act from its conception and has so testified for four successive

years, NEA calls to the attention of the House Select Education Subcommittee that, by official action of its representative Assembly, NEA is committed to:

(1) cooperative educational planning and action with adequate funding and resources, development of public policy, and environmental management;

(2) cooperative relationships between the personnel of local school systems and personnel of natural resource areas;

(3) evaluative, consultative services for local and state education associations use of environmental educational resource materials;

(4) adequate funding for experimental environmental education pilot projects;

(5) assistance to local and state education associations in curriculum development;

(6) enactment of laws to protect the environment.

The National Education Association supports H.R. 3072 to which would extend the Environmental Education Act for an additional three years and increase the funding over that period to $50 million.

STATEMENT OF P. T. EUBANKS, SUMRALL, MISS., CHAIRMAN, EDUCATION COMMITTEE, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

The National Association of Conservation Districts (NACD) represents the more than 2,800 units of state government that have been organized to conserve and protect soil, water, and related natural resources throughout the 50 states, Puerto Rico, and the Virgin Islands. These districts encompass virtually all of the land of the country (with the exception of areas of Alaska). They are managed by locally elected and/or appointed officials and are supervised by an agency of state government in each state.

Since their inception some 37 years ago, conservation districts have placed major emphasis on the creation of public awareness of the need for judicious management of the nation's basic renewable natural resources. While our program began as an effort to inform rural landowners of the principles of soil and water conservation, it now includes broader conservation education efforts involving primary and secondary schools, colleges and universities, service clubs, and organizations involving both youth and adults. Districts annually sponsor numerous in service conservation workshops for teachers; they have been a major force in the establishment of outdoor teaching areas in hundreds of schools across the land; and they sponsor and conduct tours, dinners, rallies, and meetings of an educational nature throughout the country. In addition, they have cooperated with State Education Departments, private educational facilities, and a variety of leaflets and contests to further the concept of environmental education.

NACD favors enactment of H.R. 3927. At this point in time, citizens of our nation are searching for answers and solutions to the environmental problems that plague our expanding economy. Moreover, they seek the knowledge to capitalize on the opportunities that exist for improvement of the general quality of our environment.

In our view, the Environmental Education Act stimulated worthwhile efforts in the field of environmental education. However, while the present Act encouraged numerous projects that otherwise would not have been considered, its true potential was not realized because of inadequate funding. We support the funding authorization in H.R. 3927.

We regret that the criteria for awarding grants under the present Act prevented many worthwhile environmental education efforts from being assisted. We suggest that local units of government, esteemed within their own locale, and aware of the needs, opportunities, and problems of their communities, should be among priority candidates for such grants. We would like to see this stressed within the Act.

Further, we believe that the Act does not sufficiently encourage the awarding of grants to institutions of higher learning. Finally, we recommend that the Office of Environmental Education be charged with the responsibility of disseminating information on a regular and sustained basis about the kinds and progress of grant programs. We feel this type of information would strengthen existing environmental education efforts and generate creative approaches to future applications and related endeavors.

We appreciate this opportunity to present our views.

STATEMENT OF ANTHONY MAZZOCCHI, CITIZENSHIP-LEGISLATIVE DIRECTOR, OIL, CHEMICAL AND ATOMIC WORKERS INTERNATIONAL UNION, AFL-CIO

For several years now, much has been said and written on the environmental destruction of air, water, and land.

Working people have been aware of these conditions for some time. Not only have our once-clean recreation areas become polluted, but more importantly, our neighborhoods have a smell.

At the workplace, we have been subjected to a variety of environmental insults, including excess dust, vapors, fumes, and noise.

Until recently the environmental movement had not been fully involved with the environmental problems faced by workers. The movement's concerns and activities had not been relevant to workers' concerns about their work environment.

The consequences of the strike by OCAW against Shell Oil Company has changed this situation. The environmental movement is now beginning to understand the inseparability of the work and community environment.

By the same token, workers who had in many instances been turned off by the environmental movement are now beginning to understand that it is truly one question. One cannot be concerned with the work environment without being concerned with the community environment.

Both groups have a great deal to offer each other and both are learning a great deal of each others' problems as a result of the current environmental strike against Shell. However, we cannot expect that continuing environmental education will be carried out by constant strikes such as the one in which we are presently engaged.

There is a need for a wholistic approach to the understanding of environmental problems. It must be a continuing, uninterruptable effort.

Workers have a great deal to benefit from legislation that provides meaningful environmental education. Workers also have a great deal to offer.

It is for this reason that we in the labor movement were encouraged by the passage of the Environmental Education Act in 1970. We wholeheartedly support the statement and finding and purpose of the Act, as stated in Section 2(a).

"The Congress of the United States finds that the deterioration of the quality of the Nation's environment and of its ecological balance poses a serious threat to the strength and vitality of the people of the Nation and is in part due to poor understanding of the Nation's environment and of the need for ecological balance; that presently there do not exist adequate resources for educating and informing citizens in these areas, and that concerted efforts in educating citizens about environmental quality and ecological balance are therefore necessary."

We appreciate the wisdom of the Act's sponsors that allowed grants to be awarded for in-service training projects for . . . "business, labor and industrial leaders and employees."

Indicative of the willingness of the Office of Environmental Education to work with union people is the funding last year of the Committee for Environmental Information in St. Louis. CEI has brought members of the United Auto Workers and the Teamsters Union together with environmental writers and scientists for the purpose of identifying special environmental information needs of industrial workers, and developing the educational material necessary to meet those needs.

The potential for this kind of involvement is great. I personally know of a number of unions which originated proposals submitted for funding in this fiscal year. The proposals are designed to help union members become:

Aware and informed.
Concerned.
Motivated.

about the environmental problems of their local communities and workplaces, and suggests ways for workers and their families to improve the environment around them.

Poor people, too, have much at stake. By definition they have been least responsible for pollution, in that they control and consume little. Yet poor people often find themselves trapped in the most polluted and congested areas, unable to insulate themselves from the effects of environmental degradation.

It should be obvious that all segments of society share the desire to live in a clean and healthful environment.

In the coming years our country will be deciding such important questions as growth, the use of technology, and the allocation of resources. The needs of

humans, as well as those of the physical environment, must be considered in reaching those decisions. Workers need to be informed so as to enable them to participate actively in the consideration of these matters.

We in the labor movement will continue to seek economic security for ourselves and our families, but not at the price of irreversible environmental damage. We do not feel that economic progress should have to sacrifice the quality of our environment.

The Environmental Education Act is a crucial piece of legislation which has been essential in providing environmental knowledge and understanding to a wide variety of groups. The result has been not only a broadening of concern, but the beginnings of an understanding of the multitude of issues related to the quality of our environment.

But we need to do more. President Nixon correctly, in our opinion, said:

> "The building of a better environment will require in the long term a citizenry that is both deeply concerned and fully informed. Thus, I believe that our educational system, of all levels has a critical role to play."

We feel that continuance of the Enviromental Education Act is necessary in order to ensure that all of us are both deeply concerned and fully informed.

O